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* *	*	* *	* *	* *	* Welcome to STN International * * * * * * * * * *
NE	WS	1			Web Page for STN Seminar Schedule - N. America
NE	WS	2	APR	04	STN AnaVist, Version 1, to be discontinued
NE	WS	3	APR	15	WPIDS, WPINDEX, and WPIX enhanced with new
					predefined hit display formats
NE	WS	4	APR	28	EMBASE Controlled Term thesaurus enhanced
NE	WS	5	APR	28	IMSRESEARCH reloaded with enhancements
NE	WS	6	MAY	30	INPAFAMDB now available on STN for patent family
					searching
NE	WS	7	MAY	30	DGENE, PCTGEN, and USGENE enhanced with new homology
					sequence search option
NE	WS	8	JUN	06	EPFULL enhanced with 260,000 English abstracts
NE	WS	9	JUN	06	KOREAPAT updated with 41,000 documents
NE	WS	10	JUN	13	USPATFULL and USPAT2 updated with 11-character
					patent numbers for U.S. applications
NE	WS	11	JUN	19	CAS REGISTRY includes selected substances from
					web-based collections
NE	WS	12	JUN	25	CA/CAplus and USPAT databases updated with IPC
					reclassification data
NE	WS	13	JUN	30	AEROSPACE enhanced with more than 1 million U.S.
					patent records
NE	WS	14	JUN	30	EMBASE, EMBAL, and LEMBASE updated with additional
					options to display authors and affiliated
					organizations
NE	WS	15	JUN	30	STN on the Web enhanced with new STN AnaVist
					Assistant and BLAST plug-in
NE	WS	16	JUN		STN AnaVist enhanced with database content from EPFULL
		17	JUL		CA/CAplus patent coverage enhanced
NE	WS	18	JUL	28	EPFULL enhanced with additional legal status
					information from the epoline Register
		19	JUL		IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
		20	JUL		STN Viewer performance improved
		21	AUG		INPADOCDB and INPAFAMDB coverage enhanced
NE	WS	22	AUG	13	CA/CAplus enhanced with printed Chemical Abstracts
					page images from 1967-1998
		23	AUG		CAOLD to be discontinued on December 31, 2008
		24	AUG		CAplus currency for Korean patents enhanced
NE	WS	25	AUG	25	CA/CAplus, CASREACT, and IFI and USPAT databases
					enhanced for more flexible patent number searching
NE	WS	26	AUG	27	CAS definition of basic patents expanded to ensure

comprehensive access to substance and sequence information

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FILE 'HOME' ENTERED AT 15:27:54 ON 09 SEP 2008

=> file req

 COST IN U.S. DOLLARS
 SINCE FILE
 TOTAL

 ENTRY
 SESSION

 FULL ESTIMATED COST
 0.21
 0.21

FILE 'REGISTRY' ENTERED AT 15:28:04 ON 09 SEP 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2008 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1 DICTIONARY FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

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http://www.cas.org/support/stngen/stndoc/properties.html

=> s c9h9no2

L1 1742 C9H9NO2

```
=> s c9h9no2/mf
L2
         1271 C9H9NO2/MF
=> s 12 and acrylamide
         18439 ACRYLAMIDE
             4 L2 AND ACRYLAMIDE
=> d 1-4
T.3
    ANSWER 1 OF 4 REGISTRY COPYRIGHT 2008 ACS on STN
RN
    53854-70-9 REGISTRY
    Entered STN: 16 Nov 1984
   2-Propenamide, N-(2-hydroxyphenyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
   Acrylanilide, 2'-hydroxy- (7CI)
OTHER NAMES:
CN
    N-(2-Hydroxyphenyl)acrylamide
CN
     N-Acrylov1-o-aminophenol
MF
     C9 H9 N O2
CI
     COM
LC
     STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, USPATFULL
         (*File contains numerically searchable property data)
```

$$\begin{array}{c} \text{O} \\ \text{NH-C-CH-CH}_2 \\ \text{OH} \end{array}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967) L3 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2008 ACS on STN 34443-04-4 REGISTRY RN ED Entered STN: 16 Nov 1984 CN 2-Propenamide, N-(4-hydroxyphenyl)- (CA INDEX NAME) OTHER CA INDEX NAMES: Acrylanilide, 4'-hydroxy- (6CI, 8CI) CN OTHER NAMES: CN N-(4-Hydroxyphenyl)-2-propenamide CN N-(p-Hydroxyphenyl) acrylamide CN p-Acrylamidophenol CN p-Acryloylaminophenol MF C9 H9 N O2 COM LC: STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, RTECS*, USPAT2, USPATFULL

11 REFERENCES IN FILE CA (1907 TO DATE)
11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

(*File contains numerically searchable property data) Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

26 REFERENCES IN FILE CA (1907 TO DATE) 26 REFERENCES IN FILE CAPLUS (1907 TO DATE) 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

- L3 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 33870-37-0 REGISTRY
- ED Entered STN: 16 Nov 1984
- 2-Propenamide, N-hydroxy-N-phenyl- (CA INDEX NAME) OTHER CA INDEX NAMES:
- CN Acrylohydroxamic acid, N-phenyl- (8CI)
- OTHER NAMES:
- CN N-Hydroxy-N-phenylacrylamide
- CN N-Hydroxyacrylanilide
- MF C9 H9 N O2
- CI COM
- LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, GMELIN*, TOXCENTER, USPATFULL

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 13 REFERENCES IN FILE CA (1907 TO DATE)
- 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
- 13 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- L3 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2008 ACS on STN 13040-21-6 REGISTRY
- RN
- Entered STN: 16 Nov 1984 ED
- 2-Propenamide, N-(3-hydroxyphenyl)- (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- Acrylanilide, 3'-hydroxy- (7CI, 8CI)
- OTHER NAMES:

CN N-(3-Hydroxyphenyl)acrylamide

TOXCENTER, USPATFULL

CN NSC 122233

DR 194091-51-5

ME C9 H9 N O2

STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, IFICDB, IFIPAT, IFIUDB, LC

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11 REFERENCES IN FILE CA (1907 TO DATE) 11 REFERENCES IN FILE CAPLUS (1907 TO DATE) 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> FIL REGISTRY

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 28.05 28.26

FILE 'REGISTRY' ENTERED AT 15:34:11 ON 09 SEP 2008

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STRUCTURE FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1 DICTIONARY FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

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10/593972 BY Primary Exr. Cynthia Hamilton
http://www.cas.org/support/stngen/stndoc/properties.html
=> S 53854-70-9/RN
L4
            1 53854-70-9/RN
=> SET NOTICE 1 DISPLAY
NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED
=> D L4 SQIDE 1-
YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):n
=> SET NOTICE LOGIN DISPLAY
NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED
=> s 194091-51-5
            1 194091-51-5
                (194091-51-5/RN)
=> s 194091-51-5/crn
L6
            0 194091-51-5/CRN
=> s 34443-04-4
L7
            1 34443-04-4
                (34443-04-4/RN)
=> s 34443-04-4/crn
L8
           53 34443-04-4/CRN
=> s 53854-70-9
            1 53854-70-9
                (53854-70-9/RN)
=> s 53854-70-9/crn
L10
           15 53854-70-9/CRN
=> d 19; d 17;d 15
   ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
L9
RN 53854-70-9 REGISTRY
   Entered STN: 16 Nov 1984
ED
CN 2-Propenamide, N-(2-hydroxyphenyl)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
   Acrylanilide, 2'-hydroxy- (7CI)
OTHER NAMES:
   N-(2-Hydroxyphenyl)acrylamide
CN
   N-Acryloyl-o-aminophenol
```

C9 H9 N O2

ME

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, USPATFULL (*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11 REFERENCES IN FILE CA (1907 TO DATE)

11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

- L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 34443-04-4 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN 2-Propenamide, N-(4-hydroxyphenyl)- (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN Acrylanilide, 4'-hydroxy- (6CI, 8CI) OTHER NAMES:
- CN N-(4-Hydroxyphenyl)-2-propenamide
- CN N-(p-Hydroxyphenyl) acrylamide
- CN p-Acrylamidophenol
- CN p-Acryloylaminophenol
- MF C9 H9 N O2
- CI COM
- LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, RTECS*, USPAT2, USPATFULL

(*File contains numerically searchable property data)
Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

26 REFERENCES IN FILE CA (1907 TO DATE)

26 REFERENCES IN FILE CAPLUS (1907 TO DATE) 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN

RN 13040-21-6 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenamide, N-(3-hydroxyphenyl)- (CA INDEX NAME) OTHER CA INDEX NAMES:

Acrylanilide, 3'-hydroxy- (7CI, 8CI) OTHER NAMES:

CN

N-(3-Hydroxyphenyl)acrylamide

NSC 122233 CN DR 194091-51-5

MF C9 H9 N O2

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11 REFERENCES IN FILE CA (1907 TO DATE)

11 REFERENCES IN FILE CAPLUS (1907 TO DATE) 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus COST IN U.S. DOLLARS

SINCE FILE ENTRY

8.30

TOTAL SESSION 36.56

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 15:37:04 ON 09 SEP 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 9 Sep 2008 VOL 149 ISS 11 FILE LAST UPDATED: 8 Sep 2008 (20080908/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> d his

```
(FILE 'HOME' ENTERED AT 15:27:54 ON 09 SEP 2008)
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FILE 'REGISTRY' ENTERED AT 15:28:04 ON 09 SEP 2008 L1 1742 S C9H9NO2 L2 1271 S C9H9NO2/MF L3 4 S L2 AND ACRYLAMIDE

13 4 3 LZ AND ACKIDABIDE

FILE 'REGISTRY' ENTERED AT 15:34:11 ON 09 SEP 2008 L4 1 S 53854-70-9/RN

SET NOTICE 1 DISPLAY SET NOTICE LOGIN DISPLAY

L5 1 S 194091-51-5 L6 0 S 194091-51-5/CRN L7 1 S 34443-04-4

L7 1 S 34443-04-4 L8 53 S 34443-04-4/CRN L9 1 S 53854-70-9

L10 15 S 53854-70-9/CRN

FILE 'CAPLUS' ENTERED AT 15:37:04 ON 09 SEP 2008

=> s 18 or 110 63 L8 6 L10 L11 67 L8 OR L10

=> s 111 and photo? 1604210 PHOTO?

.12 46 L11 AND PHOTO?

=> d all 1-46

L12 ANSWER 1 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:192679 CAPLUS DN 146:283590

ED Entered STN: 22 Feb 2007

TI Photosensitive resin composition for forming optical waveguide, optical waveguide, and method for forming optical waveguide pattern

```
IN Maeda, Katsumi; Nakano, Kaichiro; Kubo, Masahiro
```

PA NEC Corporation, Japan

SO U.S. Pat. Appl. Publ., 15pp.

CODEN: USXXCO

DT Patent

LA English

INCL 385141000; 385129000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

KIND DATE

Section cross-reference(s): 38

FAN.CNT 1 PATENT NO.

PI	US 20070041	698	A1	20070222	US	2006-488864	20060719
	JP 20070521	20	A	20070301	JP	2005-235944	20050816
PRAI	JP 2005-235	944	A	20050816			
CLAS	S						
PAT	ENT NO.	CLASS	PATENT	FAMILY CLASS	IFI	CATION CODES	
US :	20070041698	INCL	3851410	000: 38512900	0		
		IPCI	G02B000	06-00 [I,A]			
		IPCR	G02B000	06-00 [I,C];	G021	30006-00 [I,A]	
		NCL	385/143	1.000: 385/12	9.00	00	
JP :	2007052120	IPCI	G03F000)7-038 [I.A];	G02	2B0006-12 [I.A]; G02	2B0006-13
			[I.A]:	G03F0007-004	II.	A1; C08F0020-58 [I	.A1:
				20-00 [I,C*]		,,	
		IPCR			GO:	3F0007-038 [I,A]; C	08F0020-00
		11 011				A]; G02B0006-12 [I,0	
						30006-13 [I,C]; G02	
			[1,A];	GU3FUU07-004	ĮΙ,	C]; G03F0007-004 [:	I,A]

FTERM 2H025/AA03; 2H025/AA09; 2H025/AA10; 2H025/AB14; 2H025/AC01; 2H025/AD01; 2H025/BD03; 2H025/BD03; 2H025/CB30; 2H025/CB30; 2H025/CB30; 2H025/CB30; 2H025/CB30; 2H025/CB30; 2H025/CC17; 2H147/EA13C; 2H147/EA16A; 2H147/FF06; 2H147/FA17; 2H147/FP04; 2H147/FE02; 2H147/FF06; 2H147/FF06

4J100/AL08Q; 4J100/AM21P; 4J100/BA03P; 4J100/BC4 4J100/BC54Q; 4J100/CA04; 4J100/DA01; 4J100/DA04;

APPLICATION NO.

DATE

4J100/JA37

GI

Page 10

- AB A photosensitive resin composition for forming an optical waveguide comprises, at least, a polymer comprising at least one repeating structural unit represented by I [Rl= H or Me group; R2-5 = H, halo or C1-4 alkyl], and a photoacid generator. This composition can form an optical waveguide pattern with excellent shape precision and at a low cost, and an optical waveguide of a low propagation loss.
- T photosensitive resin optical waveguide
- IT Optical waveguides
 - (photosensitive resin composition for forming optical waveguide, optical waveguide, and method for forming optical waveguide pattern)
- IT 95-55-6, o-Aminophenol 814-68-6, Acryloyl chloride
- RL: RCT (Reactant); RACT (Reactant or reagent)
 - (photosensitive resin composition for forming optical waveguide, optical waveguide, and method for forming optical waveguide pattern) 15599-69-2P 925909-92-8P
- RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
- (photosensitive resin composition for forming optical waveguide, optical waveguide, and method for forming optical waveguide pattern) (T 2386-87-0, 3,4-Spoxycyclohexylmethyl 3,4-epoxycyclohexanecarboxylate
- 193756-79-5
 - RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive resin composition for forming optical waveguide, optical waveguide, and method for forming optical waveguide pattern)
- L12 ANSWER 2 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:1206271 CAPLUS
- DN 145:489681
- ED Entered STN: 17 Nov 2006
 - I (Meth)acrylamide derivatives for chemically amplified photosensitive resin polymers and compositions with good crack resistance and adhesion
- IN Maeda, Katsumi; Nakano, Kaichirou
- PA NEC Corporation, Japan
- SO PCT Int. Appl., 48pp.
 - CODEN: PIXXD2
- DT Patent
- LA Japanese
- CC 35-2 (Chemistry of Synthetic High Polymers) Section cross-reference(s): 38, 74

FAN CNT 1

EMIN.	CIVI	1																
	PA:	TENT :	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
							-											
PI	WO	2006	1211	50		A1		2006	1116		WO 2	006-	JP30	9540		2	0060	512
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
			GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KN,	KP,	KR,
			KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG,	MK,	MN,	MW,	MX,
			MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
			SG,	SK,	SL,	SM,	SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,
			VN,	YU,	ZA,	ZM,	ZW											
		RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
			IS,	ΙT,	LT,	LU,	LV,	MC,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,

CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM CN 101175777 20080507 CN 2006-80016467

Α PRAI JP 2005-141070 Α

WO 2006-JP309540 W 20060512

IPCR

CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

WO 2006121150 IPCI C08F0020-58 [I,A]; C08F0020-00 [I,C*]; C07C0233-27 [I,A]; C07C0233-75 [I,A]; C07C0233-00 [I,C*]; C07D0309-10 [I,A]; C07D0309-00 [I,C*]; C07F0007-18 [I,A]; C07F0007-00 [I,C*]; G03F0007-004 [I,A];

G03F0007-039 [I,A]; G03F0007-075 [I,A]; G03F0007-40 [I, A] C08F0020-00 [I,C]; C08F0020-58 [I,A]; C07C0233-00 [I,C]; C07C0233-27 [I,A]; C07C0233-75 [I,A]; C07D0309-00 [I,C]; C07D0309-10 [I,A]; C07F0007-00 [I,C]; C07F0007-18 [I,A]; G03F0007-004 [I,C];

20071113

G03F0007-004 [I,A]; G03F0007-039 [I,C]; G03F0007-039 [I.A]; G03F0007-075 [I.C]; G03F0007-075 [I.A]; G03F0007-40 [I,C]; G03F0007-40 [I,A]

ECLA G03F007/039C; C07C233/27; C07D309/10; C07F007/08D4H4H CN 101175777 TPCT C08F0020-58 [I,A]; C08F0020-00 [I,C*]; C07C0233-27 [I,A]; C07C0233-75 [I,A]; C07C0233-00 [I,C*]; C07D0309-10 [I,A]; C07D0309-00 [I,C*]; C07F0007-18 [I,A]; C07F0007-00 [I,C*]; G03F0007-004 [I,A];

G03F0007-039 [I,A]; G03F0007-075 [I,A]; G03F0007-40 [I,A]

OS MARPAT 145:489681 GI

R1 NHCOC = CH2 R6 OR2 R5 ъ3 R4 Т

AΒ Title (meth)acrylamide compds. are represented by I, wherein R1 = H or Me group; R2 = acid-decomposable group; and R3, R4, R5, R6 = independently

halogene, or C1-4 alkyl group. Thus, 20 g o-aminophenol and 17.42 g acryloyl chloride were reacted to give N-(2-hydroxyphenyl)acrylamide, 20

of which was reacted with 12.75 g chloromethyl Et ether to give N-(2-ethoxymethoxyphenyl)acrylamide, 9 q of which was polymerized with 12.2 q

```
N-(2-hydroxyphenyl)acrylamide in the presence of AIBN for 6 h undere a
     reflux condition to give a copolymer with Mw 35,800 and polydispersity
     3.72, 6 g of the resulting copolymer was mixed with NAI 101 (photo
    acid generator) 0.144, a dissoln. inhibitor 1.2, and y-butyrolactone
     11.75 g, applied on a silicon wafer, dried at 100° for 20 min,
     irradiated through a photomask, baked at 90° for 10 min,
     developed, washed, irradiated , baked at 110° for 30 min and
     220° for 1 h to form a benzoxazole ring to give a heat-resistant
    pattern, showing good crack resistance and adhesion.
    methacrylamide deriv chem amplified photosensitive resin polymer
    compn; crack resistance adhesion; aminophenol acryloyl chloride
     chloromethyl ethyl ether reactant; ethoxymethoxyphenylacrylamide monomer
    prepn; hydroxyphenylacrylamide ethoxymethoxyphenylacrylamide copolymer
    prepn
    Positive photoresists
        ((meth)acrylamide derivs. for chemical amplified photosensitive
        resin polymers and compns. with good crack resistance and adhesion)
     Monomers
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
RACT
     (Reactant or reagent)
        ((meth)acrylamide derivs. for chemical amplified photosensitive
        resin polymers and compns. with good crack resistance and adhesion)
     Acrylic polymers, uses
     RL: TEM (Technical or engineered material use); USES (Uses)
        ((meth)acrylamide derivs. for chemical amplified photosensitive
        resin polymers and compns. with good crack resistance and adhesion)
     Siloxanes (nonpolymeric)
     RL: MOA (Modifier or additive use); USES (Uses)
        (adhesion improver; (meth)acrylamide derivs. for chemical amplified
       photosensitive resin polymers and compns. with good crack
        resistance and adhesion)
     155599-69-2P 914774-58-6P 914774-59-7P
    914774-60-0P 914774-61-1P 914774-62-2P
     914774-63-3P 914774-66-6P
    RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical,
     engineering or chemical process); TEM (Technical or engineered material
     use); PREP (Preparation); PROC (Process); USES (Uses)
        ((meth)acrylamide derivs, for chemical amplified photosensitive
        resin polymers and compns. with good crack resistance and adhesion)
    91859-19-7P
                  349607-63-2P
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
```

resistance and adhesion) ΙT 914774-64-4P 914774-65-5P

RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(dissoln, inhibitor; (meth)acrylamide derivs, for chemical amplified photosensitive resin polymers and compns. with good crack resistance and adhesion)

(adhesion improver; (meth)acrylamide derivs. for chemical amplified photosensitive resin polymers and compns. with good crack

15457-49-5P 144080-77-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT

ΙT

ST

```
(Reactant or reagent)
        (intermediate in dissoln, inhibitor preparation; (meth)acrylamide
derivs.
        for chemical amplified photosensitive resin polymers and compns.
        with good crack resistance and adhesion)
     53854-70-9P, N-(2-Hydroxyphenyl)acrylamide
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
RACT
     (Reactant or reagent)
        (intermediate or monomer; preparation of (meth) acrylamide derivs. for
chemical
        amplified photosensitive resin polymers and compns. with good
        crack resistance and adhesion)
     914774-57-5P
     RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical,
     engineering or chemical process); TEM (Technical or engineered material
     use); PREP (Preparation); PROC (Process); USES (Uses)
        (intermediate; (meth)acrylamide derivs. for chemical amplified
        photosensitive resin polymers and compns. with good crack
        resistance and adhesion)
     914774-54-2P 914774-55-3P
                                  914774-56-4P
    RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
RACT
     (Reactant or reagent)
        (monomer; preparation of (meth)acrylamide derivs. for chemical
amplified
       photosensitive resin polymers and compns. with good crack
        resistance and adhesion)
     85-44-9, Phthalic anhydride
                                  2469-55-8, 1,3-Bis(3-
     aminopropyl)tetramethyldisiloxane
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reactant in adhesion improve preparation; (meth)acrylamide derivs.
for
       chemical amplified photosensitive resin polymers and compns.
        with good crack resistance and adhesion)
     98-88-4, Benzoyl chloride
                               99-63-8, Isophthaloyl chloride 83558-87-6,
     2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (reactant in dissoln. inhibitor preparation; (meth)acrylamide derivs.
for
       chemical amplified photosensitive resin polymers and compns.
        with good crack resistance and adhesion)
     95-55-6, o-Aminophenol 109-92-2, Ethylvinyl ether 814-68-6,
     2-Propenov1 chloride 3188-13-4, Chloromethyl ethyl ether 3331-55-3,
     N-(2-Hydroxyphenyl)methacrylamide
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (reactant; preparation of (meth) acrylamide derivs. for chemical
        photosensitive resin polymers and compns. with good crack
       resistance and adhesion)
             THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 3
(1) Fuji Photo Film Co Ltd; JP 2004219667 A 2004 CAPLUS
(2) Fuji Photo Film Co Ltd; JP 2004279662 A 2004 CAPLUS
(3) Konica Corp; JP 06-250448 A 1994 CAPLUS
```

- L12 ANSWER 3 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2004:330792 CAPLUS
- DN 140:347591
- ED Entered STN: 23 Apr 2004
- TI Photosensitive resin composition and presensitized lithographic
- IN Sorori, Tadahiro; Iwato, Kaoru; Endo, Akihiro; Oshima, Yasuhito
- PA Fuji Photo Film Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 52 pp. CODEN: JKXXAF
- DT Patent
- T.A Japanese
- TC ICM G03F007-004
- ICS G03F007-00
- 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1 PATENT NO.		KIND D	DATE	APPLICATION NO.	DATE
PI JP 20041259 PRAI JP 2002-287 CLASS			20040422	JP 2002-287144	20020930
PATENT NO.	CLASS	PATENT FA	MILY CLASSI	FICATION CODES	
JP 2004125985 ICM ICS IPCI IPCR		G03F0007- [I,A]; G0 2H025/AA0	00 -004 [ICM,7] -00 [I,A]; G 03F0007-004 04; 2H025/AC	[I,C*] 08; 2H025/AD01;	*]; G03F0007-004 2H025/AD03;
				29; 2H025/CC11; 17; 2H096/AA06;	

The composition contains (A) an alkali-soluble resin, (B) a light-to-heat converting agent, and (C) R3YCOCR1HCOR2 (R1-2 = H, monovalent substituent;

2H096/BA09; 2H096/EA04; 2H096/EA23; 2H096/GA08

- R3 = polymer residue; Y = linkage). The material is suited for direct platemaking using high power laser beam, and gives images with high contrast and development latitude.
- photosensitive resin compn presensitized lithog plate; acrylic polymer ketone group photosensitive resin compn
- Phenolic resins, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (novolak; photosensitive resin composition containing polymer with ketone groups for presensitized lithog. plate)
- Photoimaging materials
- (photosensitive resin composition containing polymer with ketone groups for presensitized lithog, plate)
- Lithographic plates
 - (presensitized; photosensitive resin composition containing polymer with ketone groups for presensitized lithog. plate)
- 27029-76-1, PR 54046
 - RL: TEM (Technical or engineered material use); USES (Uses)

(PR 54046; photosensitive resin composition containing polymer with ketone groups for presensitized lithog. plate)

69415-30-1 134127-48-3 205744-92-9

RL: TEM (Technical or engineered material use); USES (Uses)

(light-to-heat converting agent; photosensitive resin composition

containing polymer with ketone groups for presensitized lithog. plate) 27901-88-8 65188-70-7 146245-53-6 681007-75-0 681007-76-1 681007-77-2 681007-79-4 681007-81-8 681007-83-0

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(photosensitive resin composition containing polymer with ketone groups for presensitized lithog. plate)

26284-14-0, Butyl methacrylate-methacrylic acid copolymer Isobutyl methacrylate-methacrylic acid copolymer 141634-00-6, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive resin composition containing polymer with ketone groups for presensitized lithog, plate)

- L12 ANSWER 4 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2002:538184 CAPLUS
- DN 137:116969
 - Entered STN: 19 Jul 2002
- Positive image-forming material
- IN Kunita, Kazuto; Sato, Kenichiro
- PA Fuji Photo Film Co., Ltd., Japan SO
 - Eur. Pat. Appl., 115 pp. CODEN: EPXXDW
- DT Patent
- LA English TC ICM G03F007-039
 - ICS G03F007-023; G03F007-004
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1	ss-rerer	ence(s)	: 38		
PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI EP 1223467 EP 1223467				EP 2002-237	20020114
R: AT,	BE, CH,	DE, DK	, ES, FR,	GB, GR, IT, LI, LU, N	L, SE, MC, PT,
IE,	SI, LT,	LV, FI	, RO, MK,	CY, AL, TR	
JP 20022147	85	A	20020731	JP 2001-5178	20010112
JP 20023090	57	A	20021023	JP 2001-115595	20010413
CN 1365025		A	20020821	CN 2002-103198	20020112
US 20030057	610	A1	20030327	US 2002-43135	20020114
US 6716565		B2	20040406		
PRAI JP 2001-517	8	A	20010112		
JP 2001-115	595	A	20010413		
CLASS					
PATENT NO.	CLASS	PATENT	FAMILY CL	ASSIFICATION CODES	
EP 1223467	TCM	G03F007	-039		
DL 1223407			-023: G031	B003 004	
	105	G03F007	-023; 603	007-004	

```
G03F0007-004 [ICS.6]
                 IPCR
                        B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36
                        [I,C*]; B41M0005-36 [I,A]; G03F0007-00 [N,C*];
                        G03F0007-00 [N,A]; G03F0007-016 [I,C*]; G03F0007-021
                        [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A];
                        G03F0007-038 [N,C*1; G03F0007-038 [N,A]; G03F0007-039
                        [I,C*]; G03F0007-039 [I,A]
                 ECLA
                        B41C001/10A; B41M005/36S; G03F007/021P; G03F007/023P;
                        G03F007/039
 JP 2002214785
                TPCT
                        G03F0007-033 [ICM, 7]; C08F0020-00 [ICS, 7]; G03F0007-00
                        [ICS, 7]; G03F0007-039 [ICS, 7]
                 TPCR
                        G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0020-00
                        [I,C*]; C08F0020-00 [I,A]; G03F0007-00 [I,C*];
                        G03F0007-00 [I,A]; G03F0007-039 [I,C*]; G03F0007-039
                        [I,A]
JP 2002309057
                IPCI
                        C08L0033-04 [ICM, 7]; C08L0033-00 [ICM, 7, C*];
                        C08K0005-00 [ICS,7]; G03F0007-00 [ICS,7]; G03F0007-039
                        [ICS,7]; H01L0021-027 [ICS,7]; H01L0021-02 [ICS,7,C*]
                 IPCR
                        G03F0007-039 [I,C*]; G03F0007-039 [I,A]; C08K0005-00
                        [I,C*]; C08K0005-00 [I,A]; C08L0033-00 [I,C*];
                        C08L0033-04 [I,A]; G03F0007-00 [I,C*]; G03F0007-00
                        [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]
CN 1365025
                 TPCT
                        G03F0007-004 [ICM, 7]; G03F0070-39 [ICS, 7]; G03F0070-38
                        [ICS, 7]
                 IPCR
                        B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36
                        [I,C*]; B41M0005-36 [I,A]; G03F0007-00 [N,C*];
                        G03F0007-00 [N,A]; G03F0007-016 [I,C*]; G03F0007-021
                        [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A];
                        G03F0007-038 [N,C*]; G03F0007-038 [N,A]; G03F0007-039
                        [I,C*]; G03F0007-039 [I,A]
US 20030057610
                IPCI
                        G03F0007-039 [ICM, 7]
                 IPCR
                        B41C0001-10 [I,C*]; B41C0001-10 [I,A]; B41M0005-36
                        [I,C*]; B41M0005-36 [I,A]; G03F0007-00 [N,C*];
                        G03F0007-00 [N,A]; G03F0007-016 [I,C*]; G03F0007-021
                        [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A];
                        G03F0007-038 [N,C*]; G03F0007-038 [N,A]; G03F0007-039
                        [I,C*]; G03F0007-039 [I,A]
                        264/401.000; 430/001.000; 430/270.100; 430/285.100;
                NCL
                        430/287.100; 430/302.000; 430/326.000; 430/944.000;
                        430/945.000; 526/245.000; 526/257.000; 526/258.000;
                        526/266.000; 526/274.000; 526/280.000; 526/285.000;
                        526/286.000; 526/292.100; 526/296.000; 526/297.000;
                        430/905.000
                 ECLA
                       B41C001/10A; B41M005/36S; G03F007/021P; G03F007/023P;
                        G03F007/039; S03F; S03F; S03F; S03F; S03F; S03F
    The present invention relates to a pos. image-forming material favorably
AB
    usable as the so-called direct lithog, printing plate material capable of
     plate-making directly form digital signals in a computer with various
    kinds of lasers, or suitably usable as photoresist materials.
     The pos. image-forming material comprises a resin including a repeating
```

unit corresponding to a specific monomer having an α -heteromethyl structure: RaRbXIC-C(=C)Ql (Ql = cyano (CN), COX2; Xl,2 = hetero atom, halogen atom; Ra,b = H, halogen atom, cyano group, organic residual

G03F0007-039 [ICM,6]; G03F0007-023 [ICS,6];

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10/593972 BY Primary Exr. Cynthia Hamilton
```

ΙT

Holography Lithographic plates

lithog printing plate photoresist resin acid generator

```
Photoresists
        (pos. image-forming material for)
IT
     201024-57-9 384850-16-2
     RL: TEM (Technical or engineered material use); USES (Uses)
        (IR absorbing dye; pos. image-forming material for lithog printing
       plate containing)
ΙT
    79723-43-6 125604-88-8
                              304882-18-6
     RL: TEM (Technical or engineered material use); USES (Uses)
        (acid generator; pos. image-forming material for lithog printing plate
        containing)
     52411-04-8 68900-98-1 84563-49-5 101491-20-7 120504-13-4
     127326-57-2 134127-48-3 442900-31-4 442900-32-5
     RL: TEM (Technical or engineered material use); USES (Uses)
        (dissoln. inhibitor; pos. image-forming material for lithog printing
       plate containing)
     27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
                                                          409332-98-5
     409332-99-6 409333-02-4 442899-98-1 442899-99-2
                                                           442900-01-8
     442900-02-9
                 442900-04-1 442900-05-2 442900-06-3
     442900-07-4
                  442900-09-6 442900-11-0
                                             442900-12-1
                                                            442900-13-2
                               442900-18-7
     442900-15-4 442900-17-6
442900-22-3 442900-24-5
                                              442900-19-8
                                             442900-28-9
                               442900-26-7
     RL: TEM (Technical or engineered material use); USES (Uses)
        (resin; pos. image-forming material for lithog printing plate
containing)
L12 ANSWER 5 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
    2002:532390 CAPLUS
DN
    137:325939
ED
    Entered STN: 17 Jul 2002
TI
    Self-assembly of homopolymer and copolymers of N-4-hydroxyphenyl-
    acrylamide with diazoresin via H-bonding attraction
AU
    Yang, Zhaohui; Cao, Tingbing; Chen, Jinyu; Cao, Weixiao
CS
    Peking University, College of Chemistry and Molecular Engineering,
    Beijing, 100871, Peop. Rep. China
SO
    European Polymer Journal (2002), 38(10), 2077-2082
    CODEN: EUPJAG: ISSN: 0014-3057
PB
    Elsevier Science Ltd.
DT
    Journal
LA
    English
CC
    37-3 (Plastics Manufacture and Processing)
AB
    A kind of photoactive multilayer ultrathin films was fabricated
    via H-bonding attraction from hydroxyphenyl containing polymers as
H-donor and
     diazoresin (DR) as H-acceptor by means of a self-assembly technique. The
     layer-by-layer deposition of two components is monitored
spectrometrically
     and shows that the UV-VIS absorbance of the film increases linearly both
     at 250 nm (absorption of benzene nucleus) and at 383 nm (absorption of
     diazonium group), which indicates that the fabrication proceeds
regularly.
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The nature of H-bonding between layers was verified by the determination

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spectra of the film fabricated directly on a CaF2 wafer. The stability
of
     the films toward polar solvents increases dramatically after UV
irradiation of
     the films. It was confirmed provisionally that the bond nature between
     the layers of the film changes from H-bonding to covalent bonding under
UV
     irradiation The photodecompn. of the -N2+ groups of the film under
    UV light follows first order reaction kinetics and a mechanism of the
     photoreaction has been tentatively proposed.
ST
     hydroxyphenylacrylamide polymer diazoresin self assembly hydrogen bonding
ΤТ
    Multilavers
        (photoactive; self-assembly of homopolymer and copolymers of
        hydroxyphenyl-acrylamide with diazoresin via H-bonding attraction)
ΙT
     Hydrogen bond
     Light-sensitive materials
     Self-assembly
        (self-assembly of homopolymer and copolymers of hydroxyphenyl-
        acrylamide with diazoresin via H-bonding attraction)
     75-77-4, Trimethylsilyl chloride, reactions 123-30-8, 4-Aminophenol
     814-68-6, Acryloyl chloride
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (in preparation of hydroxyphenylacrylamide)
     34443-04-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (preparation and polymerization of)
     29989-17-1P 155599-65-8P 428868-49-9P
     RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PYP
     (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC
     (Process)
        (self-assembly of homopolymer and copolymers of hydroxyphenyl-
       acrylamide with diazoresin via H-bonding attraction)
RE.CNT 15
              THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Ariga, K; J Am Chem Soc 1997, V119, P2224 CAPLUS
(2) Bertrand, P; Macromol Rapid Commun 2000, V21, P319 CAPLUS
(3) Cao, S; Polym Int 1998, V45, P142 CAPLUS
(4) Chen, J; Chem Commun 1999, P1711 CAPLUS
(5) Decher, G; Ber Busenges Phys Chem 1991, V95, P1430 CAPLUS
(6) Decher, G; Biosensor Bioelectron 1994, V9, P677 CAPLUS
(7) Decher, G; Science 1997, V277, P1232 CAPLUS
(8) Gallardo, A; Polymer 1993, V34, P395
(9) Kleiufeld, E: Science 1994, V265, P370
(10) Laschewsky, A; Ber Bunsen-Ges, Phys Chem 1996, V100, P1033 CAPLUS
(11) Lvov, Y; J Am Chem Soc 1995, V117, P6117 CAPLUS
(12) Ritter, H; Markromol Chem 1986, V187, P901
(13) Shimazaki, Y; Langmuir 1997, V13, P1385 CAPLUS (14) Stockton, W; Macromolecules 1997, V30, P2117
(15) Wang, J; Macromol Rapid Commun 1997, V18, P509
L12 ANSWER 6 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
AN
     2002:216335 CAPLUS
DN
     136:270603
```

- Entered STN: 22 Mar 2002 ED
- TI Presensitized lithographic plates containing acrylic binder polymers with small residual monomers
- IN Tan, Shiro; Fujita, Kazuo
- PA Fuji Photo Film Co., Ltd., Japan
- SO Jpn. Kokai Tokkvo Koho, 16 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM G03F007-033
- ICS C08F220-44; C08F220-48; G03F007-00; G03F007-022; C08F220-12; C08F220-56
- 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 200208243	5 A	20020322	JP 2000-272571	20000908
PRAI JP 2000-2725	71	20000908		
CLASS				
PATENT NO.	CLASS PATENT	FAMILY CLAS	SIFICATION CODES	

JP 2002082435 TCM G03F007-033

ICS C08F220-44; C08F220-48; G03F007-00; G03F007-022; C08F220-12; C08F220-56

IPCI G03F0007-033 [ICM, 7]; C08F0220-44 [ICS, 7]; C08F0220-48 [ICS, 7]; G03F0007-00 [ICS, 7]; G03F0007-022 [ICS, 7]; C08F0220-12 [ICS,7]; C08F0220-56 [ICS,7]; C08F0220-00

[ICS, 7, C*] TPCR G03F0007-033 [I,C*]; G03F0007-033 [I,A]; C08F0220-00 [I,C*]; C08F0220-44 [I,A]; C08F0220-48 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-022

[I,C*]; G03F0007-022 [I,A] The plates possess photosensitive layers containing (A)

alkali-developable vinylic polymers and (B) o-naphthoquinonediazide, where

A contain acrylonitrile (I) and H2C:CR1COX1R2Y1nZ1m [X1 = O, NR3 [R3 = H, C1-12 (cvclo)alkvl, arvl(alkvl)); R1 = H, Me; R2 = single bond, bivalent organic group; Y1 = arylene; Z1 = acidic-H-bearing group; n = 0, 1; m ≥ 1 integer] and satisfying free I content ≤1% (based on the

polymer solids). The plates show excellent wear and chemical resistance and

printing durability.

- ST presensitized lithog plate durability acrylic binder; acrylonitrile copolymd acrylic binder PS plate; wear resistance stability presensitized lithog plate
- ΙT Lithographic plates

(presensitized; presensitized lithog, plates containing sp. acrylic

binders

- and showing good wear and chemical resistance)
- 169202-35-1P 263716-62-7P, Acrylonitrile-2-[N'-(4hydroxyphenyl)ureido]ethyl methacrylate-methyl methacrylate copolymer 326820-82-0P 326820-92-2P 334978-35-7P, Acrylonitrile-N-(paminosulfonylphenyl)methacrylamide-N-isopropylacrylamide-methyl

methacrylate copolymer

RL: PNU (Preparation, unclassified); TEM (Technical or engineered

use); PREP (Preparation); USES (Uses)

(binders; presensitized lithog. plates containing sp. acrylic binders and

showing good wear and chemical resistance)

T 53208-22-3, o-Naphthoquinonediazide

RL: CAT (Catalyst use); USES (Uses)

(presensitized lithog. plates containing sp. acrylic binders and showing

good wear and chemical resistance)

- L12 ANSWER 7 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2000:863745 CAPLUS
- DN 134:35033
- ED Entered STN: 11 Dec 2000
 - I Photoresist composition suitable for lithographic printing plate
- IN Furukawa, Akira; Doi, Kunihiro
- PA Mitsubishi Paper Mills, Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 16 pp.
 - CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM G03F007-004
- ICS G03F007-00; G03F007-032
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 FAN.ONT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI UP 2000338657 A 20001208 JP 1999-152510 19990531

PRAI UP 1999-152510 19990531

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 2000338657 ICM G03F007-004

ICS G03F007-00; G03F007-032 IPCI G03F0007-004 [ICM,7]; G03F0007-00 [ICS,7];

G03F0007-032

[ICS,7]

AB The photoresist composition comprises a sulfonylazido compound, a dye having absorption from visible to near IR, and a binder containing phenolic OH

group. The composition shows excellent sensitivity and storage stability.

- ST photoresist compn lithog printing plate IT Polyvinyl acetals
 - RL: TEM (Technical or engineered material use); USES (Uses)
 (hydroxybenzals; in photoresist composition suitable for lithog.
- printing plate) II Photoresists

```
(photoresist composition suitable for lithog, printing plate)
   Lithographic plates
       (presensitized; photoresist composition suitable for lithog.
       printing plate)
    7456-69-1, 1,5-Naphthalenedisulfonyl diazide 9003-39-8, Poly(vinyl
    pyrrolidone) 24979-70-2, Poly(4-vinylphenol) 25053-88-7,
    Formaldehyde-4-methylphenol copolymer 28777-87-9D, Hydroxybenzaldehyde, polyvinyl acetal derivs. 55281-19-1 134127-48-3 311817-52-4,
    2,6-Naphthalenedisulfonyl diazide 311817-53-5 311817-54-6
    311817-55-7 311817-56-8 311817-58-0 311817-59-1
    RL: TEM (Technical or engineered material use); USES (Uses)
        (in photoresist composition suitable for lithog. printing plate)
L12 ANSWER 8 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    2000:420877 CAPLUS
DN
    133:51217
ED
   Entered STN: 23 Jun 2000
    Photosensitive element for lithographic plate preparation
TΙ
IN
   Fujita, Kazuo; Kawamura, Koichi; Watanabe, Noriaki
    Fuji Photo Film Co., Ltd., Japan
PA
SO Eur. Pat. Appl., 31 pp.
    CODEN: EPXXDW
DT
   Patent
T.A
   English
IC
    ICM G03F007-004
CC
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN.CNT 1
         NI NO. KIND DATE
                                          APPLICATION NO. DATE
    PATENT NO.
                                        APPLICATION NO.
                       ----
   EP 1011030
                    A1 20000621
B1 20020417
                                         EP 1999-124870
                                                                19991216
PΙ
    EP 1011030
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    JP 2000181053 A 20000630 JP 1998-357362 19981216
PRAI JP 1998-357362
                        A
                              19981216
CLASS
             CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
EP 1011030
               ICM G03F007-004
                IPCI G03F0007-004 [ICM, 6]
                IPCR B41N0001-12 [I,C*]; B41N0001-14 [I,A]; C09D0133-14
                       [I,C*]; C09D0133-14 [I,A]; G03F0007-00 [I,C*];
                       G03F0007-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004
                       [I,A]; G03F0007-032 [I,C*]; G03F0007-032 [I,A]
                       G03F007/004S
                ECLA
JP 2000181053
                IPCI
                       G03F0007-00 [ICM, 7]; B41N0001-14 [ICS, 7]; B41N0001-12
                       [ICS, 7, C*]; C09D0133-14 [ICS, 7]; G03F0007-004 [ICS, 7];
                       G03F0007-032 [ICS,7]
                      B41N0001-12 [I,C*]; B41N0001-14 [I,A]; C09D0133-14
                IPCR
                       [I,C*]; C09D0133-14 [I,A]; G03F0007-00 [I,C*];
                       G03F0007-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004
                       [I,A]; G03F0007-032 [I,C*]; G03F0007-032 [I,A]
```

A photosensitive element for lithog. plate preparation is obtained by coating a support with a solution containing a fluorine-containing

copolymer, a

photosensitive compound, a binder, and an organic solvent and drying, wherein the fluorine-containing copolymer is obtained by dissolving a copolymer having 1-80% by weight of a fluorinated (meth)acrylate as a constituent unit in a solvent, purifying the fluorinated (meth)acrylate-containing copolymer by bringing the resulting solution

into

contact with an inorg. adsorbent containing $80\,\mbox{\%}$ by weight or more of an oxide of

silicon, an oxide of aluminum, or a mixture thereof, bringing the resulting

solution into contact with a synthettic adsorbent comprising a (modified) styrene-divinylbenzene copolymer or a (meth)acrylate copolymer, and filtering the resulting solution through a filter having a pore size of 1 um or less.

IT photosensitive element fluorinated methacrylate copolymer lithog plate; purifn fluorinated methacrylate copolymer presensitized lithog plate

IT Diatomite

RL: NUU (Other use, unclassified); USES (Uses)

(Radiolite 100; purification of fluorinated (meth)acrylate-containing copolymers

for presensitized lithog. plate preparation using adsorbents containing

diatomite and)
IT Photoimaging materials

(containing purified fluorinated (meth)acrylate copolymers for lithog.

plate preparation)

IT Lithographic plates

(photosensitive compns. containing purified fluorinated (meth)acrylate copolymers for preparation of)

IT 1344-28-1, Alumina, uses

RL: NUU (Other use, unclassified); USES (Uses)

(active; adsorbent in purification of fluorinated (meth)acrylate-containing

copolymers for use in photosensitive elements for lithog. plate preparation)

109617-10-9, SP 207

RL: NUU (Other use, unclassified); USES (Uses)

(adsorbent in purification of fluorinated (meth)acrylate-containing copolymers

for use in photosensitive elements for lithog, plate preparation)
T 135758-92-8P 251098-96-1P 251113-55-0P 275818-99-0P

I 135758-92-8P 251098-96-1P 251113-55-0P 275818-99-0P 275819-00-6P

RL: PUR (Purification or recovery); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(purification and use in photosensitive elements for lithog. plate preparation)

12197-54-5, Cerite

RL: NUU (Other use, unclassified); USES (Uses)

(purification of fluorinated (meth)acrylate-containing copolymers for presensitized lithog. plate preparation using adsorbents containing diatomite

and)

IT 78-93-3, Methyl ethyl ketone, uses 107-98-2, 1-Methoxy-2-propanol
RL: NUU (Other use, unclassified); USES (Uses)

copolymers for

(1) Fuji Photo Film Co Ltd; EP 0843218 A 1998 CAPLUS (2) Honda Kenii; US 5300628 A 1994 CAPLUS (3) Okazaki, S; US 5422221 A 1995 CAPLUS (4) Shinozaki, F; US 4803145 A 1989 CAPLUS L12 ANSWER 9 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN AN 2000:254691 CAPLUS DN 132:286357 ED Entered STN: 21 Apr 2000 TΙ Positive-working presensitized lithographic plates IN Uno, Seiji; Tan, Shiro; Imaizumi, Atsuhiro; Akiyama, Keiji PA Fuji Photo Film Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 29 pp. SO CODEN: JKXXAF DT Patent LA Japanese ICM G03F007-039 ICS B41N001-14; G03F007-00; G03F007-004; G03F007-11 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 38 FAN.CNT 1 PATENT NO. KIND DATE DATE APPLICATION NO. JP 2000112128 20000421 JP 1998-284507 A 19981006 PRAI JP 1998-284507 19981006 CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES JP 2000112128 ICM G03F007-039 ICS B41N001-14; G03F007-00; G03F007-004; G03F007-11 IPCI G03F0007-039 [ICM, 7]; B41N0001-14 [ICS, 7]; G03F0007-00 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-11 [ICS,7] IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41N0001-12 [I,C*]; B41N0001-14 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; G03F0007-11 [I,C*]; G03F0007-11 [I,A] The lithog, plates have hydrophilic Al supports having thereon (a) internal layers containing polymers with acid group-containing components and onium group-containing components, and (c) photosensitive layers containing polymers containing CH2:CR8PpQqRrZz(OH)n (P, R = divalent org

(solvent in purification of fluorinated (meth)acrylate-containing

use in photosensitive elements for lithog. plate preparation)
RE.CNI 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

exhibit good developability when developed with silicate salt-free developers. SI pos working presensitized lithog plate; onium salt acid group polymer

 $Z = \operatorname{aromatic}$ which may be substituted; R8 = H, alkyl, halo; p, q, r, z = 1; n = 1-3 integer), (meth)acrylonitrile, (meth)acrylic acid esters, and other monomers. The lithog, plates have good adhesion to matt layers and

group; Q,

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lithog; acrylic polymer photosensitive laver lithog plate
     Lithographic plates
        (presensitized, pos.-working; pos.-working presensitized lithog.
plates
        having good adhesion to matt layers)
     220227-02-1 252721-97-4
     RL: TEM (Technical or engineered material use); USES (Uses)
        (internal layer containing; pos.-working presensitized lithog, plates
        having good adhesion to matt layers)
     263757-99-9P
     RL: PNU (Preparation, unclassified); TEM (Technical or engineered
material
     use); PREP (Preparation); USES (Uses)
        (photosensitive layer containing; pos.-working presensitized
        lithog. plates having good adhesion to matt layers)
IT
     263758-00-5 263758-01-6
     RL: TEM (Technical or engineered material use); USES (Uses)
        (pos.-working presensitized lithog, plates having good adhesion to
matt
        lavers)
L12 ANSWER 10 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
     1998:653687 CAPLUS
     129:283448
OREF 129:57657a,57660a
    Entered STN: 15 Oct 1998
   Radiation sensitive composition and registration materials for
     lithographic printing plates prepared therewith
IN
   Elsasser, Andreas; Gaschler, Otfried; Haberhauer, Helmut; Eichhorn,
    Mathias; Grabley, Fritz-Feo; Leichsenring, Thomas; Koletar, Gabor I.;
    Seeley, Douglas A.
PA
    AGFA-GEVAERT A.-G., Germany
SO Eur. Pat. Appl., 8 pp.
    CODEN: EPXXDW
DT
    Patent
LA
   German
TC
    ICM B41C001-10
     ICS B41M005-40
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
FAN.CNT 1
                        KIND DATE APPLICATION NO.
    PATENT NO.
                                                               DATE
   EP 867278
                         A1 19980930 EP 1998-105080
B1 20011121
                                                                   19980320
PΤ
     EP 867278
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, PT, IE,
             SI, LT, LV, FI, RO
DE 19712323 A1 19981001 DE 1997-19712323 
US 6100004 A 20000808 US 1998-38162 
JP 10293398 A 19981104 JP 1998-66828 
PRAI DE 1997-19712323 A 19970324
                                                                    19970324
                                                                    19980311
                                                                    19980317
CLASS
 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
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EP 867278 ICM B41C001-10

B41M005-40

TCS

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IPCI
                        B41C0001-10 [ICM,6]; B41M0005-40 [ICS,6]
                 IPCR
                        G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41C0001-10
                        [I,C*]; B41C0001-10 [I,A]; B41M0005-40 [I,C*];
                        B41M0005-46 [I,A]; C09D0011-00 [I,C*]; C09D0011-00
                        [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A];
                        G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-022
                        [I,C*]; G03F0007-022 [I,A]; G03F0007-32 [I,C*];
                        G03F0007-32 [I.A]
                 ECLA
                        B41C001/10A; B41M005/40F2; B41M005/46B
 DE 19712323
                 IPCI
                        G03F0007-004 [ICM,6]; G03F0007-021 [ICS,6];
                        G03F0007-016 [ICS,6,C*]; G03F0007-14 [ICS,6]
                 TPCR
                        G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41C0001-10
                        [I,C*]; B41C0001-10 [I,A]; B41M0005-40 [I,C*];
                        B41M0005-46 [I,A]; C09D0011-00 [I,C*]; C09D0011-00
                        [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A];
                        G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-022
                        [I,C*]; G03F0007-022 [I,A]; G03F0007-32 [I,C*];
                        G03F0007-32 [I.A]
                 ECLA
                        B41M005/46B; B41C001/10A
US 6100004
                 IPCI
                        G03F0007-021 [ICM, 7]; G03F0007-016 [ICM, 7, C*];
                        G03F0007-30 [ICS, 7]
                 TPCR
                        G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41C0001-10
                        [I,C*]; B41C0001-10 [I,A]; B41M0005-40 [I,C*];
                        B41M0005-46 [I,A]; C09D0011-00 [I,C*]; C09D0011-00
                        [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A];
                        G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-022
                        [I,C*]; G03F0007-022 [I,A]; G03F0007-32 [I,C*];
                        G03F0007-32 [I,A]
                 NCL.
                        430/176.000; 430/191.000; 430/192.000; 430/193.000;
                        430/270.100; 430/281.100; 430/302.000
                 ECLA
                        B41C001/10A; B41M005/40F2
JP 10293398
                 IPCI
                        G03F0007-004 [ICM,6]; C09D0011-00 [ICS,6]; G03F0007-00
                        [ICS,6]; G03F0007-021 [ICS,6]; G03F0007-016
[ICS, 6, C*];
                        G03F0007-022 [ICS,6]; G03F0007-32 [ICS,6]
                 TPCR
                        B41C0001-10 [I,A]; B41C0001-10 [I,C*]; B41M0005-40
                        [I,C*]; B41M0005-46 [I,A]
                        B41M005/46B; B41C001/10A
AB
    A pos. - or neg.-working radiation-sensitive resist mixture contains a
cont
    pigment with a primary particle size of at least 80 nm as an IR-absorbing
    component, wherein the soot pigment is dispersed in a polymer containing
an
     acid unit having pKs value of smaller than 13.
ST
    radiation sensitive resist compn printing plate; offset lithog plate soot
     pigment
ΙT
     Lithographic plates
        (offset; radiation sensitive composition and registration materials
for
        lithog, printing plates prepared therewith)
    Photoresists
     Soot.
        (radiation sensitive composition and registration materials for
lithog.
```

printing plates prepared therewith)

IT Carbon black, uses

Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(radiation sensitive composition and registration materials for lithog. $% \label{eq:composition}%$

printing plates prepared therewith)

- [17] 23121-00-8 24979-70-2, Poly(4-hydroxy styrene) 27029-76-1 31693-08-0, 2-Hydroxyethyl methacrylate-methacrylic acid copolymer 3833-84-5, Acetone-pyrogallol copolymer 68510-93-0 110254-07-4 128067-80-1, (4-Hydroxy-3,5-dimethylbenzyl)methacrylamide homopolymer 155599-65-8 213902-63-7
 - RL: TEM (Technical or engineered material use); USES (Uses) (radiation sensitive composition and registration materials for

lithog. printing plates prepared therewith)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

- (1) Clark, F; WO 9401280 A 1994
- (2) Davi, H; WO 9620429 A 1996 CAPLUS
- (3) Minnesota Mining & Mfg; EP 0562952 A 1993 CAPLUS
- (4) Scitex Corp Ltd; WO 9700175 A 1997 CAPLUS
- L12 ANSWER 11 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1998:160674 CAPLUS
- DN 128:277125
- OREF 128:54731a.54734a
- ED Entered STN: 18 Mar 1998
- Method of forming electrophotographic lithographic printing plate
- IN Kato, Eiichi
- PA Fuji Photo Film Co., Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 41 pp.
- CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM G03G013-28 ICS G03G015-16
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

KIND DATE

Section cross-reference(s): 35, 38

FAN.CNT 1

	PAIENI NO.		VIND	DAIL	MERLICATI	ON NO.	DAIL
PI	JP 10063042		A	19980306	JP 1996-2	21536	19960822
	JP 1996-221	536		19960822			
CLASS	5						
PATE	ENT NO.	CLASS	PATENT	FAMILY CLA	SSIFICATION	CODES	
JP 1	10063042	ICM	G03G013	3-28			

ICS G03G015-16 IPCI G03G0013-28 [ICM.6

IPCI G03G0013-28 [ICM,6]; G03G0015-16 [ICS,6]
IPCR G03G0015-16 [I,C*]; G03G0015-16 [I,A]; G03G0013-28
[I,C*]; G03G0013-28 [I,A]

ADDITORTION NO

DATE

AB The process comprises the steps of (1) forming a peelable transfer layer made from a chemical removable resin (A) on the surface of electrophotog.

photoreceptor, (2) forming an electrophotog. toner image using a liquid developer, (3) transferring the toner image and the transfer layer onto a intermediate transfer material having sticky surface at a temperature (T1), (4) transferring the toner image and the transfer layer onto a final receptor which will turn to a lithog, printable hydrophilic surface at a temperature (T2; T2>T1), and (5) chemical removing the transfer layer, wherein a sticking force of the intermediate transfer material is set at ≥3 g·force at T1 and ≤40 g·force at T2 based on JIS Z 0237-1980. The process transferred the toner image well, and. electrophotog lithog printing plate; intermediate transfer material lithog printing plate IT Lithographic plates (method of forming electrophotog. lithog. printing plate) 205175-60-6P 205175-63-9P 205175-64-0P 205175-65-1P 205175-66-2P 205175-67-3P 205175-68-4P 205175-70-8P 205175-71-9P 205175-72-0P 205175-74-2P 205175-75-3P 205175-73-1P 205175-76-4P 205175-77-5P 205175-78-6P RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (method of forming electrophotog. lithog. printing plate) L12 ANSWER 12 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN AN 1998:1273 CAPLUS DN 128:95387 OREF 128:18533a,18536a ED Entered STN: 02 Jan 1998 Negative-working photosensitive composition for lithographic printing plate IN Aoshima, Keitaro PA Fuji Photo Film Co., Ltd., Japan SO U.S., 23 pp., Cont.-in-part of U.S. Ser. No. 953,259, abandoned. CODEN: USXXAM DT Patent LA English IC ICM G03F007-021 INCL 430176000 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 35, 38

FAN.	FAN.CNT 2									
	PATENT NO.			KIND	DATE	AF	PLICATION 1	10.	DATE	
PI	US	5698361		A	199712	216 US	1993-1420	14	19931028	
	JP	05100419		A	19930	423 JF	1991-2594	32	19911007	
	JP	05142765		A	199300	611 JF	1991-3032	29	19911119	
PRAI	JΡ	1991-259	432	A	199110	007				
	JP	1991-303	229	A	19911:	119				
	US	1992-953	259	В2	199209	930				
CLAS	S									
PAT	ENT	NO.	CLASS	PATENT	FAMILY	CLASSIFI	CATION COD	ES		

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US 5698361
                 TCM
                       G03F007-021
                 INCL
                       430176000
                 IPCI
                       G03F0007-021 [ICM.6]; G03F0007-016 [ICM.6.C*]
                 IPCR C08G0018-00 [I,C*]; C08G0018-38 [I,A]; G03F0007-016
                        [I,C*]; G03F0007-021 [I,A]
                 NCL
                       430/176.000; 430/157.000; 430/175.000; 430/906.000;
                        522/032,000
                 ECLA
                       C08G018/38F9; G03F007/021P
 JP 05100419
                 IPCI
                        G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*];
                        H01L0021-027 [ICS,5]; H01L0021-02 [ICS,5,C*]
                 TPCR
                       G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-00
                        [I,C*]; G03F0007-00 [I,A]; G03F0007-033 [I,C*];
                        G03F0007-033 [I,A]; H01L0021-02 [I,C*]; H01L0021-027
                        [I,A]; H01L0021-30 [I,A]
 JP 05142765
                 IPCI
                        G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*];
                        G03F0007-00 [ICS,5]; G03F0007-035 [ICS,5];
G03F0007-032
                        [ICS,5,C*]; H01L0021-027 [ICS,5]; H01L0021-02
                        [ICS, 5, C*]
                 IPCR
                        G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016
                        [I,C*]; G03F0007-021 [I,A]; G03F0007-032 [I,C*];
                        G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-035
                        [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A];
                        H01L0021-30 [I,A]
    The present invention relates to a neg.-working photosensitive
```

composition comprising a diazonium compound and a polymer binder. The polymer

binder is (1) or (2) decribed below. (1) Is an AB type, ABA type or BAB type block copolymer of: (i) a block (A) represented by [H2CCR1(X1Z)] and (ii) a block (B) represented by [H2CCR5(X2R6)] being free from I. (2) Is a block copolymer obtained by subjecting to radical polymerization (i) an azo

group-containing polyurethane (C) which contains a unit having R7NHCOOR6N=NR6OCONH and a unit having R9NHCOOR10OCONH in the mol. and which has a weight-average mol. weight of 2,000-200,000; and (ii) a polymerizable

monomer having H2C=R1(X1Z).

- ST neg photosensitive compn polymer binder; lithog printing plate photosensitive compn
- TT Lithographic plates

(neq.-working photosensitive composition for lithog, printing plate)

- тт Polvurethanes, uses
 - RL: TEM (Technical or engineered material use); USES (Uses) (neg.-working photosensitive composition for lithog, printing plate)
- IT 149787-91-7P, Acrylic acid-ethyl methacrylate-2-hydroxyethyl methacrylate block copolymer 149826-04-0P 149826-05-1P 149826-06-2P 201054-29-7DP, Ethyl methacrylate-triphenylmethyl methacrylate copolymer, hydrolyzed, reaction product with 2-bromoethanol 201054-31-1P 201054-32-2P 201054-33-3P 201054-35-5P 201054-37-7P 201054-39-9P 201054-41-3P 201054-42-4P 201054-43-5P RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(neg.-working photosensitive composition for lithog, printing plate)

- L12 ANSWER 13 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1996:566824 CAPLUS DN 125:208497
- OREF 125:38761a,38764a
- Entered STN: 21 Sep 1996
- TI Photosensitive compositions useful for preparing presensitized lithographic plates
- TN Tsuji, Shigeo; Matsuo, Fumyuki; Matsumura, Tomoyuki; Ishii, Nobuyuki; Kizu, Norvuki
- PA Mitsubishi Chemical Corp., Japan; Konishiroku Photo Ind
- Jpn. Kokai Tokkyo Koho, 10 pp. SO CODEN: JKXXAF
- DT Patent
- LA Japanese
- TC ICM G03F007-021
- ICS G03F007-00; G03F007-027; G03F007-032; G03F007-033

KIND DATE

74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 37

FAN.CNT 1 PATENT NO.

PI JP 08171	206	A	19960702	JP 1994-316650	19941220
PRAI JP 1994-	316650		19941220		
CLASS					
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 08171206	ICM	G03F00	7-021		
	ICS	G03F00	7-00; G03F00	7-027; G03F007-032; (G03F007-033
	IPCI	G03F00	07-021 [ICM,	6]; G03F0007-00 [ICS	,6];

G03F0007-027

[ICS,6]; G03F0007-032 [ICS,6]; G03F0007-033 [ICS,6] IPCR G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-032 [I,C*]; G03F0007-032 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]

APPLICATION NO.

DATE

The title compns., comprising a compound having ≥1 ethylenic unsatd. double bond, an acidic vinyl copolymer soluble or swellable in aqueous alkali, a

photopolymn. initiator, and a diazo resin, employ, as the vinyl copolymer, a copolymer containing (a) a structural unit having an aromatic compound

possessing ≥1 group comprising aromatic OH and sulfonamide groups in its side chain, (b) an unit having cyano group in its chain, (c) a unit based on Et methacrylate and/or Me methacrylate, and (d) an unit based on ≥1 monomer which is copolymerizable with the monomers (a), (b), and (c) and of which the glass transition of the homopolymer is ≤50°. The presensitized lithog, plates using the compns. show good alkali-developability and printing durability. Thus, a photosensitive composition comprised trimethylolpropane triacrylate,

N-(4-hydroxyphenyl)methacrylamide-acrylonitrile-Me methacrylate-Et acrylate-methacrylic acid copolymer, a photopolymn. initiator,

and a diazo resin.

- ST photosensitive compn vinyl copolymer; presensitized lithog plate photosensitive compn
- IT Lithographic plates

(photosensitive composition containing acidic vinyl copolymer for presensitized lithog. plate)

IT 15625-89-5, Trimethylolpropane triacrylate 16941-11-0D, Ammonium hexafluorophosphate, reaction products with diazo resin 132459-36-0, Acrylonitrile-ethyl acrylate-N-(4hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate

copolymer 181044-84-8 RL: DEV (Device component use); USES (Uses)

(photosensitive composition containing acidic vinyl copolymer for presensitized lithog. plate)

IT 125785-09-3DP, reaction products with ammonium hexafluorophosphate 126034-88-6DP, reaction products with ammonium hexafluorophosphate RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(photosensitive composition containing acidic vinyl copolymer for presensitized lithog, plate)

- L12 ANSWER 14 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1996:469866 CAPLUS
- DN 125:127831

OREF 125:23697a,23700a

ED Entered STN: 09 Aug 1996

- TI Presensitized lithographic printing plate with improved printability
- IN Tomyasu, Hiroshi; Kajiwara, Shigeru; Masai, Junji
- PA Mitsubishi Chemical Corp., Japan; Konishiroku Photo Ind
- SO Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM B41N003-03
 - ICS C25D011-16; G03F007-00; G03F007-021
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 FAN.CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI JP 08132751 PRAI JP 1994-277 CLASS	A	19960528 19941111	JP 1994-277840	19941111	
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 08132751	ICM ICS IPCI IPCR	B41N000 [ICS,6] G03F000 [I,C*];	1-16; G03F00 03-03 [ICM,6 0; G03F0007- 07-016 [I,C* B41N0003-0	7-00; G03F007-021]; C25D0011-16 [ICS,6 021 [ICS,6]]; G03F0007-021 [I,A] 3 [I,A]; C25D0011-04 G03F0007-00 [I,C*];]; B41N0003-03 [I,C*];

AB The title printing plate comprises an anodized Al support with a sp. surface roughness measured by an AFM (Atomic force microscopy) and a

photosensitive layer containing a diazo resin or OH group-containing acrylic resin.

- ST presensitized lithog plate aluminum support
- IT Lithographic plates

(presensitized, presensitized lithog. printing plate with improved printability)

IT Lithographic plates

(supports, presensitized lithog. printing plate with improved printability)

IT 29763-27-7, Acrylonitrile-methacrylic acid-methyl methacrylate copolymer 125785-09-3, p-Diazodiphenylamine sulfate-formaldehyde-p-hydroxybenzoic acid copolymer 132459-36-0, Acrylonitrile-ethyl acrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid-methyl

methacrylate copolymer RL: DEV (Device component use); USES (Uses)

(photosensitive layer of presensitized lithog, printing plate comprising)

- L12 ANSWER 15 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1996:191653 CAPLUS
- DN 124:302567
- OREF 124:55831a,55834a
- ED Entered STN: 04 Apr 1996
- I Photosensitive transfer sheet useful for preparing color proofs
- IN Wakata, Juichi; Araki, Katsumi; Totsuka, Mikio
- PA Fuji Photo Film Co Ltd, Japan
- SO Jpn. Kokai Tokkyo Koho, 15 pp.
- CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM G03F007-004
 - ICS G03F003-10; G03F007-11

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) FAM CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI JP 07333836 PRAI JP 1994-126 CLASS		A	19951222 19940608	JP 1994-126519	19940608
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 07333836	ICM ICS IPCI		3-10; G03F00 07-004 [ICM,	7-11 6]; G03F0003-10 [ICS	S,6]; G03F0007-11
	IPCR	[I,C*];]; G03F0007-004 [I,7 0 [I,A]; G03F0007-11	

AB The title transfer sheet, comprising a support with coatings of an organic

polymer-containing releasing layer and a color material-containing photosensitive layer or a laminate of a color material layer and a photosensitive layer, contains, in the releasing layer, ≥ 1 polymer having a repeating unit CH2CR1[XA(OH)n] (R1 = H, Me; A = C6-10

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aryl which may be substituted for ≥1 or a combination of ≥2
     selected from C1-6 alkyl, C6-10 aryl, C1-6 alkoxy, halo, cyano, CO2H,
     CO2R2, COR3, CONR4R5, and nitro; X = CO2, CONR6, CO2R7, CONR2R7; R2-6 =
н.
     C1-6 alkyl, C6-10 aryl, these groups may be substituted for ≥1 or a
     combination of ≥2 selected from OH, C1-6 alkoxy, halo, and CN: R7 =
     C1-10 alkylene, aralkylene, these groups may be branched and may contain
     or a combination of ≥2 selected from ether bond, OCO, and CO2; n =
     1-3). The sheet useful for preparing color proofs and displays shows
annd
    transferability and imaging properties under varied moisture conditions
     and antiflaking properties and provides high-quality images without color
     fog. Thus, a PET film was coated successively with a releasing layer
     containing CM-8000 (alc.-soluble polyamide) and poly[N-(p-
     hydroxyphenyl)acrylamide], a yellow photosensitive layer, and a
     protective layer to give a yellow photosensitive transfer sheet.
     Magenta, cvan, and black photosensitive transfer sheets were
    prepared similarly.
     photosensitive transfer sheet releasing laver
ΙT
    Photoimaging compositions and processes
        (photosensitive transfer sheet with releasing layer)
     Polyamides, uses
    RL: DEV (Device component use); USES (Uses)
        (photosensitive transfer sheet with releasing laver)
     25191-90-6, CM 8000
     RL: DEV (Device component use); USES (Uses)
        (photosensitive transfer sheet with releasing layer)
     80633-45-0P
                  134257-23-1P 155599-65-8P 175784-16-4P
     175784-17-5P
     RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
     (Preparation); USES (Uses)
        (photosensitive transfer sheet with releasing layer)
ΙT
     13040-21-6P 34443-04-4P, N-(p-Hydroxyphenyl)acrylamide
     87157-77-5P 175784-18-6P
     RL: DEV (Device component use); PNU (Preparation, unclassified); PREP
     (Preparation); USES (Uses)
        (preparation and polymerization of)
     51-67-2, p-(2-Aminoethyl)phenol 123-30-8, p-Aminophenol 150-75-4,
     p-Methylaminophenol 591-27-5
                                    814-68-6, Acrylic acid chloride
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of hydroxyphenylacrylamide compound)
L12 ANSWER 16 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
     1995:943574 CAPLUS
AN
DN
    123:354705
OREF 123:63371a,63374a
    Entered STN: 24 Nov 1995
ED
    Photosensitive planographic printing plate processing method
    without using hazardous developers
    Suzuki, Toshitsugu; Matsumura, Tomoyuki; Murata, Masahisa; Toshimitsu,
    Eriko; Tsuji, Shigeo
    Konishiroku Photo Ind, Japan; Mitsubishi Kagaku KK
SO
    Jpn. Kokai Tokkyo Koho, 18 pp.
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CODEN: JKXXAF

- DT Patent
- LA Japanese
- IC ICM G03F007-32
- ICS G03F007-00; G03F007-004; G03F007-021; G03F007-033; G03F007-038 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
- Reprographic Processes)

FAN.CNT 1 PATENT NO.	c FIOCE	KIND	DATE	APPLICATION NO.	DATE			
PI JP 07230172 PRAI JP 1994-419 CLASS		Α	19950829 19940216	JP 1994-41959	19940216			
PATENT NO.	CLASS	PATENT	FAMILY CLASS	IFICATION CODES				
JP 07230172 ICM ICS		G03F007 G03F007 G03F007	-00; G03F007	-004; G03F007-021; G0	3F007-033;			
	IPCI	G03F0007-32 [ICM,6]; G03F0007-00 [ICS,6]; G03F0007-004 [ICS,6]; G03F0007-021 [ICS,6]; G03F0007-033 [ICS,6]; G03F0007-038 [ICS,6]; G03F0007-038 [ICS,6];						
	IPCR	G03F000	7-004 [I,C*]	; G03F0007-004 [I,A];	G03F0007-00			

[I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-033 [I,C*]; G03F0007-038 [I,C*]; G03F0007-038 [I,A];

- AB The title method includes developing a photosensitive printing plate with an alkaline developing solution (pH <12) containing no
- organic solvent.
 ST photosensitive planog printing plate processing
- IT Alcohols
 - RL: DEV (Device component use); USES (Uses)
 - (C12-16, Conol 20F, development accelerator; photosensitive
 - planog. printing plate comprising)
- IT Polyesters, preparation
 - RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
- (phenolic, photosensitive planog, printing plate comprising)
- IT Printing plates (planog., presensitized, photosensitive planog. printing
- plate processing method without using hazardous developers)

 IT Phenolic resins, preparation
 - Phenolic resins, preparation
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
- (Preparation); USES (Uses)
 - (polyester-, photosensitive planog. printing plate
- comprising)
 IT 89-51-0, Homophthalic acid 108-55-4, Glutaric acid anhydride
- 4023-65-8, trans-Aconitic acid 9050-31-1, HP 55 RL: DEV (Device component use); USES (Uses)
- (development accelerator; photosensitive planog. printing
- plate comprising)
- IT 16941-11-ODP, Ammonium hexafluorophosphate, reaction products with Na
 - dibutylnaphthalenesulfonate 25417-20-3DP, Sodium dibutylnaphthalenesulfonate, reaction products with 4-diazophenylamine sulfate-formaldehyde-p-hydroxybenzoic acid copolymer 125785-09-3DP, 4-Diazodiphenylamine sulfate-p-hydroxybenzoic acid-paraformaldehyde

copolymer, reaction products with Na dibutylnaphthalenesulfonate 126033-29-2DP, 4-Diazodiphenylamine sulfate-paraformaldehyde-sodium benzensulfonate copolymer*, reaction products with Na dibutylnaphthalenesulfonate

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(diazo resin; photosensitive planog, printing plate comprising)

comprising)
132459-36-0P, Acrylonitrile-ethyl acrylate-N-(4-

hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate copolymer 143932-43-8P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(lipophilic polymer; photosensitive planog. printing plate comprising)

- L12 ANSWER 17 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1995:849469 CAPLUS
- DN 123:270843
- OREF 123:48195a,48198a ED Entered STN: 12 Oct 1995
- ED Entered STN: 12 Oct 1995
- TI Photosensitive compositions useful as negative-working lithographic plates
- IN Toshimitsu, Eriko; Shimizu, Shigeki
- PA Mitsubishi Kagaku KK, Japan
- SO Jpn. Kokai Tokkyo Koho, 10 pp.
- CODEN: JKXXAF
- DT Patent LA Japanese
- LA Japanese IC ICM G03F007-021
- ICS G03F007-00; G03F007-004; G03F007-033; G03F007-038
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.		KIND	DATE		APPLICATION NO.			NO.		DATE	
										-	
PI JP (7168353		A	19950	704	JΡ	1993-	3165	553		19931216
PRAI JP 1993-316553				199312	216						
CLASS											
PATENT N	10.	CLASS	PATENT	FAMILY	CLASS	FIC	CATION	COE	ES		

JP 07168353 ICM G03F007-021 ICS G03F007-014; G03F007-033; G03F007-038 IPCI G03F007-021 [ICM,6]; G03F0007-016 [ICM,6,C*]; G03F0007-00 [ICS,6]; G03F0007-04 [ICS,6];

G03F0007-033

[ICS,6]; G03F0007-038 [ICS,6] G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-038 [I,C*]; G03F0007-038 [I,A]

OS MARPAT 123:270843

AB The title compns. contain a diazonium compound, an oleophilic polymer, and a

compound (R1R2AR3R4)+.X- [I; R1-4 = H, (substituted) alkyl which may have

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10/593972 BY Primary Exr. Cynthia Hamilton
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multiple bonds, (substituted) aryl, ≥2 of R1-4 may form a ring, but ≥1 of R1-4 is not H; A = N, P; X = halo anion, O-containing anion]. The compns. have good developing property and better resistance to wetting upon printing, and the image areas exhibit good alkali resistance even after storage at high temperature and humidity. Thus, a photosensitive composition comprised a diazonium compound prepared from p-hydroxybenzoic acid, p-diazodiphenylamonium sulfate, and paraformaldehyde, phydroxyphenylmethacrylamide-Et acrylate-acrylonitrile copolymer, I (R1-4 Bu, A = N, X = C1), and additives. ST photosensitive compn diazonium compd; quaternary ammonium salt lithog plate; phosphonium salt lithog plate Lithographic plates (neg.-working lithog. plate containing diazonium compound and quaternary ammonium or phosphonium compound) Ouaternary ammonium compounds, uses RL: MOA (Modifier or additive use); USES (Uses) (benzyl-C12-14-alkyldimethyl chlorides, neg.-working lithog. plate containing diazonium compound and quaternary ammonium or phosphonium compound) 7646-85-7DP, Zinc chloride, reaction products with diazo resin and hexafluorophosphate 16941-11-0DP, Ammonium hexafluorophosphate, reaction 125785-09-3DP, products with diazo resin and zinc chloride p-Diazodiphenylammonium sulfate-formaldehyde-p-hydroxybenzoic acid copolymer, reaction products with zinc chloride and hexafluorophosphate 169202-35-1P RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses) (neg.-working lithog. plate containing diazonium compound and quaternary ammonium or phosphonium compound) 56-37-1, Triethylbenzylammonium chloride 67-48-1, Choline chloride 75-57-0, Tetramethylammonium chloride 112-00-5, Quartamin 24P 1112-67-0, Tetrabutylammonium chloride 1643-19-2, Tetrabutylammonium 1941-27-1, Tetrabutylammonium nitrate 3115-68-2, Tetrabutylphosphonium bromide 7182-86-7, Tetrabutylammonium p-toluenesulfonate 32503-27-8, Tetrabutylammonium hydrosulfate RL: MOA (Modifier or additive use); USES (Uses) (neg.-working lithog, plate containing diazonium compound and quaternary ammonium or phosphonium compound) L12 ANSWER 18 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN AN 1995:499874 CAPLUS DN 123:22208 OREF 123:3999a,4002a Entered STN: 20 Apr 1995

Alkali-developable photosensitive composition and image

Kawamura, Koichi; Takita, Satoshi; Kawamura, Yoshitaka; Akyama, Keiji

TN

formation using it

Fuji Photo Film Co Ltd, Japan PA

Jpn. Kokai Tokkyo Koho, 22 pp. SO

CODEN: JKXXAF

Pat.ent.

LA Japanese

IC ICM G03F007-033

ICS G03F007-00; G03F007-039; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1			
PATENT NO.	KIND DATE	APPLICATION NO.	DATE
PI JP 07036185	A 19950207	JP 1993-183023	19930723
JP 3071611	B2 20000731		
PRAI JP 1993-183023	19930723		
CLASS			
PATENT NO. CLASS	PATENT FAMILY CLA	SSIFICATION CODES	
JP 07036185 ICM	G03F007-033		
ICS	G03F007-00; G03F0	07-039; H01L021-027	
IPCI	G03F0007-033 [ICM	,6]; G03F0007-00 [ICS,6]	;
G03F0007-039			
	[ICS,6]; H01L0021	-027 [ICS,6]; H01L0021-0	2 [ICS,6,C*]

IPCR G03F0007-00 [I,C*]; G03F0007-00 [I,A]; C08F0020-00 [I,C*]; C08F0020-20 [I,A]; G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]

GI

The composition contains a polymer obtained by polymerization of ≥1 vinvl-containing benzoic acid derivative I [A = H, halo, alkyl; X = O, NH, NR5;

Ι

R1-4 = H, halo, (substituted) alkyl, (substituted) aryl, OR6, OCOR7, NHCOR8, NHCONHR9, OCONHR10, CO2R11, CONHR12, COR13, CONR14R15, CN, CHO; 2 of R1-4 may be form ring; R5 = alkyl; R6-15 = (substituted) alkyl, (substituted) aryl; L = divalent organic group] and a pos. photosensitive substance. Images are obtained by exposing a material having a photosensitive layer obtained from the composition and developing with an alkali aqueous solution with pH ≤12.5. The composition

is useful for manufacture of lithog. printing plates, integrated circuits,

photomasks, etc. The composition gave lithog. printing plates with

good printability.

ST alkali developable photoresist benzoic acid polymer

Resists

(photo-, alkali-developable photoresist containing

benzoic acid derivative polymer and image formation using it) 163588-51-0P 163588-53-2P 163588-54-3P 163588-55-4P 163588-56-5P

163588-57-6P 163588-59-8P 163588-60-1P 163588-61-2P 163588-62-3P 163588-64-5P 163588-65-6P RL: IMF (Industrial manufacture); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)

(alkali-developable photoresist containing benzoic acid derivative polymer and image formation using it) 163588-46-3P

тт 163588-42-9P 163588-43-0P 163588-44-1P 163588-45-2P 163588-47-4P 163588-48-5P 163588-49-6P 163588-50-9P RL: PNU (Preparation, unclassified); PREP (Preparation)

(alkali-developable photoresist containing benzoic acid derivative polymer and image formation using it)

118-92-3, Anthranilic acid 320-72-9, 3,5-Dichloro-2-hydroxybenzoic acid 635-21-2, 2-Amino-5-chlorobenzoic acid 1075-49-6, 4-Vinylbenzoic acid 6245-04-1 30674-80-7, 2-Isocyanatoethyl methacrylate 68701-14-4 69260-38-4 69260-39-5 86017-34-7 91652-00-5, 4-(6-Methacryloyloxyhexyloxy)benzoic acid 159086-65-4 RL: RCT (Reactant); RACT (Reactant or reagent)

(alkali-developable photoresist containing benzoic acid derivative polymer and image formation using it)

5610-94-6 68584-99-6

> RL: TEM (Technical or engineered material use); USES (Uses) (alkali-developable photoresist containing benzoic acid derivative polymer and image formation using it)

- L12 ANSWER 19 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- 1994:334822 CAPLUS AN
- DN 120:334822
- OREF 120:58665a,58668a
- ED Entered STN: 25 Jun 1994
- TΙ Silver halide photographic materials with good drying properties
- IN Yamanochi, Junichi; Takagi, Yasuvuki; Tamura, Yutaka
- Fuji Photo Film Co Ltd, Japan PA
- SO Jpn. Kokai Tokkvo Koho, 28 pp.
- CODEN: JKXXAF DT Patent
- LA Japanese TC
- ICM G03C001-053 ICS G03C005-26

74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05323488	A	19931207	JP 1992-133922	19920526
	JP 2794513	B2	19980910		
	US 5445931	A	19950829	US 1994-283763	19940803
PRAI	JP 1992-133922	A	19920526		
	US 1993-66199	B1	19930525		

CLASS

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

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JP 05323488 ICM G03C001-053
               ICS G03C005-26
               IPCI G03C0001-053 [ICM,5]; G03C0005-26 [ICS,5]
               IPCR G03C0001-053 [I,C*]; G03C0001-053 [I,A]; G03C0005-26
                      [I,C*]; G03C0005-26 [I,A]
              IPCI G03C0001-047 [ICM, 6]
US 5445931
                IPCR G03C0001-053 [I,C*]; G03C0001-053 [I,A]
                NCL
                      430/627.000; 430/516.000; 430/529.000; 430/537.000;
                      430/539.000; 430/635.000; 430/640.000; 430/963.000
                ECLA G03C001/053
    The title materials, prepared by forming ≥1 Ag halide emulsion layer
    on a support, contain a water-soluble polymer, which is insol. and
soluble in
    water at pH ≤6 and ≥10, resp., derived from CO2H-containing
    monomers or their salts in ≥1 of the hydrophilic colloid layers.
    The materials show good drying properties in super-high speed process.
     Thus, a PET film coated with an undercoat layer was coated with a Ag(Br,
     I) emulsion layer and a gelatin-based protective layer containing a
    NaOH-neutralized homopolymer of CH2:CHCONH(CH2)10CO2H to give a
    photog. film.
    carboxyl group polymer photog material
IT Photographic films
       (with good drying properties, containing polymer with carboxyl group)
   155599-61-4 155599-62-5 155599-64-7 155599-66-9
     155599-68-1 155599-70-5 155599-72-7
    RL: USES (Uses)
       (photog. film containing, for good drying properties)
L12 ANSWER 20 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
   1994:311539 CAPLUS
AN
DN
    120:311539
OREF 120:54557a,54560a
ED Entered STN: 11 Jun 1994
TI Photoimaging material and image formation using some
IN Wakata, Juichi; Iwasaki, Masayuki; Fujikura, Sadao; Ito, Hideaki
PA Fuji Photo Film Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
    CODEN: JKXXAF
DT Patent
LA Japanese
TC
    ICM G03F007-027
    ICS G02B005-20; G03F007-038; G03F007-30
   74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN.CNT 1
                      KIND DATE APPLICATION NO. DATE
    PATENT NO.
                       A 19930402 JP 1991-239484
PRAI JP 1991-239484
CLASS
                                                              19910919
                             19910919
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
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JP 05080510 ICM G03F007-027

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10/593972 BY Primary Exr. Cynthia Hamilton
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TCS
                       G02B005-20; G03F007-038; G03F007-30
                IPCI
                       G03F0007-027 [ICM,51; G02B0005-20 [ICS,51;
G03F0007-038
                       [ICS,51: G03F0007-30 [ICS,51
                IPCR
                       G02B0005-20 [I,C*]; G02B0005-20 [I,A]; G03F0007-027
                       [I,C*]; G03F0007-027 [I,A]; G03F0007-038 [I,C*];
                       G03F0007-038 [I,A]; G03F0007-095 [I,C*]; G03F0007-095
                       [I,A]; G03F0007-26 [I,C*]; G03F0007-26 [I,A];
                       G03F0007-30 [I,C*]; G03F0007-30 [I,A]
    In the title material comprising a 1st photosensitive-resin
    layer developable by an aqueous alkali solution and a 2nd photosensitive
    -resin layer developable by a weaker aqueous alkali solution than the
above, the
    .
1st layer contains a polymer of acid value 70-150 with acid groups of pKa
    9-13, and the 2nd layer contains a polymer of acid value 50-250 with acid
    groups of pKa 3-8. The 1st layer may contain a polymer with SO2NH,
    CONHCO, or hydroxyphenyl and the 2nd layer CO2H. The image is produced
on
    the above layers by patternwise exposing the 2nd layer, developing the
    exposed 2nd layer using a weaker alkali developer which will not develop
    the 1st layer, patternwise exposing the exposed 1st layer, and developing
    the 1st layer using an alkali developer having a smaller H+
concentration than
    the above weaker developer.
    photosensitive laver dual alkali development;
    photoresist double layer patterning
ΤТ
    Optical imaging devices
       (color filters for, photoresist patterning for)
IT
    Photoimaging compositions and processes
       (dual photoresist layer using)
    Resists
       (photo-, patterning of, dual layer)
    Electric circuits
       (printed, photoresist for manufacturing)
    29061-97-0 65697-21-4 147026-46-8 147161-03-3 155079-18-8
    155079-19-9 155079-20-2
    RL: USES (Uses)
       (photoresist composition from)
    34443-04-4, N-(p-Hydroxy phenyl)acrylamide 56992-87-1, N-(p-Amino
    sulfonvl phenvl)methacrylamide 123426-65-3 146883-73-0
    RL: USES (Uses)
        (preparation polymerization of, photoresist composition from)
L12 ANSWER 21 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    1994:284820 CAPLUS
DN
   120:284820
OREF 120:50033a,50036a
   Entered STN: 28 May 1994
ED
    Color photographic material containing polymeric coupler
IN
   CHen, Tien Teh; Cowan, Stanley Wray; Schofield, Edward; Tang, Ping Wah
    Eastman Kodak Co., USA
PA
SO
    Eur. Pat. Appl., 24 pp.
    CODEN: EPXXDW
    Patent
T.A
   English
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- ICM G03C007-327 TC
- ICS C08F020-36
- 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) FAN.CNT 1

PATENT NO.				APPLICATION NO.	
PI EP 569097 EP 569097 EP 569097		A2 A3 B1	19931110 19950405 19990818	EP 1993-201275	
	CH, DE	FR, GB	, IT, LI, NL		
US 5360710		A	19941101	US 1992-879044	19920506
				JP 1993-104380	
				US 1994-263231	19940621
PRAI US 1992-879	044	A	19920506		
CLASS					
PATENT NO.				IFICATION CODES	
EP 569097	TOM	G03C007			
EL 26303/		C08F020			
	IPCI]; C08F0020-36 [ICS,	El. COSTODO DO
	1101	IICS,5], C00F0020-30 [1C3,	J]; C00F0020-00
	IPCR			C08F0020-36 [I,A];	C02C0007-227
	11 010		G03C0007-32		00300007 327
	ECLA		/36; G03C007		
US 5360710			7-327 [ICM.5		
05 0000110	IPCR			C08F0020-36 [I,A];	G03C0007-327
	11 011		G03C0007-32		0000007 027
	NCL			6.000; 430/558.000	
			/36; G03C007		
JP 06051468	IPCI		7-327 [ICM.5		
	IPCR	C08F002	0-00 [I,C*];	C08F0020-36 [I,A];	G03C0007-327
			G03C0007-32		
US 5455147	IPCI	G03C000	7-388 [ICM, 6	1	
	IPCR	C08F002	0-00 [I,C*];	C08F0020-36 [I,A];	G03C0007-327
		[I,C*];	G03C0007-32	7 [I,A]	
	NCL	430/449	.000; 430/54	6.000; 430/548.000;	516/056.000;
		516/060	.000; 516/06	1.000	

A color photog. material comprises a support bearing a silver halide emulsion layer containing at least one water-dispersible polymeric coupler. The polymeric coupler is formed by polymerization of a mixture of at

least one ethylenically unsatd, coupler monomer containing a dye-forming coupler moiety and at least one ionic monomer containing an ionizable functional group in a water-miscible organic solvent. The polymeric

coupler contains less than 10 weight% of the ionic monomer.

- color photog material polymeric coupler
- ΙT Photographic couplers
 - (polymeric, water-dispersed, preparation and use of)

ECLA C08F020/36; G03C007/327B

- Photographic emulsions
- (color, containing water-dispersed polymeric color formers)
- 154868-41-4P 154868-42-5P 154868-44-7P 154868-45-8P 154868-46-9P 154868-48-1P 154868-50-5P 154868-51-6P 154868-52-7P

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154868-53-8P 154868-54-9P 154868-55-0P 154868-56-1P 154868-57-2P 154868-63-0P 154868-63-0P 154868-63-0P 154868-63-0P 154868-67-2P 154868-673-0P 154868-73-2P 154868-73-2P 154868-73-1P 154868-73-4P 1548
```

RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photog, coupler, water-dispersed, preparation and use of)

L12 ANSWER 22 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1993:459759 CAPLUS

DN 119:59759

OREF 119:10579a,10582a ED Entered STN: 07 Aug

ED Entered STN: 07 Aug 1993

TI Manufacture of presensitized lithographic plate with quick inking property

IN Koike, Akinobu

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp. CODEN: JKXXAF

DT Patent

LA Japanese

C ICM G03F007-00

ICS G03F007-016; G03F007-027; G03F007-30

C 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PAT	ENT NO.		KIND	DATE	APPLICATION NO.	DATE
	04299345 1991-6475	4	A	19921022 19910328	JP 1991-64754	19910328
PATENT	NO.	CLASS	PATENT	FAMILY CLASS	IFICATION CODES	
JP 0429		ICM ICS IPCI		-016; G03F00	7-027; G03F007-30 ; G03F0007-016 [ICS,5],	;
GOSFOOOS	-027					

G03F0007-027

[ICS,5]; G03F0007-30 [ICS,5] G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016 [I,C*]; G03F0007-016 [I,A]; G03F0007-027 [I,C*]; G03F0007-027 [I,A]; G03F0007-30 [I,C*]; G03F0007-30 [I,A]

AB The lithog. plate prepared by coating a substrate with a

photosensitive layer containing (1) arom diazonium compound containing 21 group selected from CO2H, phenolic OH, SO3H, SO2H, and P oxygen acid, (2) oleophilic polymer, and (3) a polymer containing

p-hydroxystyrene

ester as a monomer unit and/or silicone-type surfactant, is imagewise exposed, and developed by an aqueous alkali developer with pH \geq 12 (at 25°) and containing essentially number organic solvent. The lithog.

plate

can be developed by aqueous developer, and shows quick inking property, and

gives clear images without stains.

ST presensitized lithog plate inking property

```
Siloxanes and Silicones, uses
     RL: DEV (Device component use); USES (Uses)
       (acrylic, presensitized lithog. plate containing, for quick inking
property
        , Aron GS 30)
     Lithographic plates
       (presensitized, developable with aqueous alkali solution, with good
inkina
IT
    7646-85-7D, Zinc chloride, reaction product with diazo resin and
    dibutylnaphthalenesulfonate 25417-20-3D, Sodium
    dibutylnaphthalenesulfonate, reaction product with diazo resin and zinc
     chloride 125785-09-3D, reaction product with zinc chloride and
    dibutylnaphthalenesulfonate 126033-29-2D, reaction product with zinc
     chloride and dibutylnaphthalenesulfonate 132459-36-0,
    Acrylonitrile-ethyl
acrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic
     acid-methyl methacrylate copolymer 143932-42-7D, reaction product with
     zinc chloride and dibutvlnaphthalenesulfonate 148798-87-2
     RL: DEV (Device component use); USES (Uses)
       (presensitized lithog. plate containing)
     147833-70-3 148798-89-4
     RL: DEV (Device component use); USES (Uses)
       (presensitized lithog. plate containing, for quick inking property)
L12 ANSWER 23 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    1993:202124 CAPLUS
DN
    118:202124
OREF 118:34537a,34540a
ED
   Entered STN: 14 May 1993
    Manufacture of lithographic plate using diazo resin
IN Koike, Akinobu
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
    CODEN: JKXXAF
DT
   Patent
LA
    Japanese
    ICM G03F007-00
TC
    ICS G03F007-016; G03F007-30
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
     Section cross-reference(s): 38
FAN.CNT 1
                      KIND DATE
    PATENT NO.
                                        APPLICATION NO.
                                                           DATE
     -----
                       ----
                                                              -----
                                         -----
                             19921022 JP 1991-64753
PRAI JP 1991-64753
                                                              19910328
                              19910328
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
                ICM
JP 04299344
                      G03F007-00
                ICS
                      G03F007-016; G03F007-30
                      G03F0007-00 [ICM, 5]; G03F0007-016 [ICS, 5]; G03F0007-30
                IPCR G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-004
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[I,C*]; G03F0007-004 [I,A]; G03F0007-016 [I,C*];
                        G03F0007-016 [I.A]; G03F0007-30 [I.C*]; G03F0007-30
AB
    The title plate is manufactured by a process including following steps:
(1)
     coating a solution of a photosensitive composition containing an arom
     diazonium compound substituted with carboxyl, sulfonic acid, sulfinic
acid.
     and/or P oxyacid group in a mixture of ≥2 solvents containing a liquid
of
     b.p. ≥115° and a solvent of b.p. ≤95°, (2)
     drying, (3) imagewise exposing the resulting photosensitive
     plate, and (4) developing by an organic solvent-free water-based
alkaline liquid of
     pH ≥12 at 25°. The plate shows improved printing
     resistance.
ST
     lithog plate photosensitive azo resin; org solvent free
     development lithog; carboxy substituted azo resin lithog; sulfonic acid
     substituted azo resin; sulfinic acid substituted azo resin; phosphorus
     oxvacid substituted azo resin; alk water based development lithog
    Lithographic plates
        (manufacture of, development by organic solvent-free aqueous solns.
of azo
        resin-containing photosensitive compns. in)
     1310-58-3, Potassium hydroxide, uses 1312-76-1, Potassium silicate
     RL: USES (Uses)
        (developing solns. containing, for manufacture of lithog. plates)
     67-56-1, Methanol, uses 78-93-3, Methyl ethyl ketone, uses 107-98-2,
     1-Methoxy-2-propanol 109-86-4, Methyl cellosolve
     RL: USES (Uses)
        (photosensitive compns. containing, for manufacture of lithog. plates)
     125785-09-3DP, reaction products with dibutylnaphthalenesulfonic acid
     hexafluorophosphoric acid 126033-29-2DP, reaction products with
     dibutylnaphthalenesulfonic acid hexafluorophosphoric acid
     132459-36-0P, Acrylonitrile-ethyl acrylate-N-(4-
     hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate
                147045-53-2P
     copolymer
     RL: PREP (Preparation)
        (preparation of, for manufacture of lithog. plates)
L12 ANSWER 24 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
AN
     1993:202119 CAPLUS
DN
    118:202119
OREF 118:34533a,34536a
ED
    Entered STN: 14 May 1993
ΤI
     Manufacture of lithographic printing plate using aqueous alkali solution
    Koike, Akinobu; Sakaki, Hirokazu
IN
PA
    Fuji Photo Film Co., Ltd., Japan
SO
    Jpn. Kokai Tokkyo Koho, 10 pp.
     CODEN: JKXXAF
DT
    Patent
LA
    Japanese
     ICM G03F007-32
     ICS G03F007-00
     74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
```

Reprographic Processes)

FAN.CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI JP 04284457		A	19921009	JP 1991-49837	19910314
PRAI JP 1991-498	37		19910314		
CLASS					
PATENT NO.	CLASS	PATENT	FAMILY CLASS	IFICATION CODES	
JP 04284457	ICM	G03F007	-32		
	ICS	G03F007	-00		
	IPCI	G03F000	7-32 [ICM, 5]	; G03F0007-00 [ICS,5]	
	IPCR	G03F000	7-00 [I,C*];	G03F0007-00 [I,A]; G03F	F0007-016
		[I,C*];	G03F0007-02	1 [I,A]; G03F0007-09 [I	,C*];

[I, A] A presensitized lithog, plate, prepared by forming a photosensitive layer containing a diazo resin and an oleophilic polymer on a support obtained

G03F0007-09 [I,A]; G03F0007-32 [I,C*]; G03F0007-32

- by anodic oxidation of a HCl-electrolytically coarsened Al plate in a H2SO4
- solution using d.c. of c.d. 8-25 A/dm2, is imagewise exposed and developed
- with an aqueous alkali solution of pH ≥12 containing no organic solvent to give a
- lithog, printing plate. The generation of scums in developing bath is prevented even when the plate is developed with an aqueous alkali solution
- presensitized lithog plate prepn; alkali ag developer lithog plate; anodization aluminum substrate presensitized lithog plate
- Anodization
- (of aluminum plates for lithog. plate substrates)
- TТ Lithographic plates
- (presensitized, anodization of substrates for, for alkali development) IT 37321-70-3
 - RL: RCT (Reactant); RACT (Reactant or reagent)
 - (anodization of, for presensitized lithog. plate substrates)
- 125785-09-3DP, reaction products with anions 147025-68-1DP, reaction products with anions RL: PREP (Preparation)
 - (preparation of, for presensitized lithog. plates)
- 132459-36-0P, Acrylonitrile-ethyl acrylate-N-(4hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate 143932-43-8P copolymer RL: PREP (Preparation)
- (preparation of, for presensitized lithog, plates containing diazo resins)
 - 7646-85-7D, Zinc chloride, reaction products with diazo resins 16941-11-0D, Ammonium hexafluorophosphate, reaction products with diazo resins 25417-20-3D, Sodium dibutvlnaphthalenesulfonate, reaction products with diazo resins
 - RL: DEV (Device component use); USES (Uses)
 - (presensitized lithog, plates containing)
- L12 ANSWER 25 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN

- AN 1993:202118 CAPLUS DN 118:202118
- ON 118:202118
- OREF 118:34533a,34536a
- ED Entered STN: 14 May 1993
- TI Manufacture of lithographic printing plate using aqueous alkali developer
- IN Koike, Akinobu; Sakaki, Hirokazu
- PA Fuji Photo Film Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 10 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM G03F007-32
- ICS G03F007-00
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI JP 04284456		A	19921009	JP 1991-49836	19910314
PRAI JP 1991-498 CLASS	36		19910314		
PATENT NO.	CLASS	PATENT	FAMILY CLASS	IFICATION CODES	
JP 04284456	ICM ICS IPCI IPCR		-00 7-32 [ICM,5]	; G03F0007-00 [ICS,5] G03F0007-00 [I,A]; G03	3F0007-32

- [I,C*]; G03F0007-32 [I,A]
 AB A presensitized lithog. plate, prepared by forming a photosensitive
- layer containing a diazo resin and an oleophilic polymer on an alkali-etched,
- acid-neutralized, and $\ensuremath{\mathsf{HC1}}\xspace ensuremath{\mathsf{-electrolytically}}\xspace$ coarsened support, is imagewise
- exposed and developed with an aqueous alkali solution of pH ≥ 12 containing no
- organic solvent to give a lithog. printing plate. The printing plate developed with an aqueous atkali solution shows good printing durability. presensitized lithog plate plate making; alkali aq developer lithog
- plate; aluminum substrate presensitized lithog plate
- IT Lithographic plates
- (presensitized, pretreatment of substrates for, for alkali
- development)
- IT 1310-73-2, Sodium hydroxide, uses 6834-92-0, Sodium metasilicate
 RL: USES (Uses)
- (lithog. plate aluminum substrates pretreated with) 11 125785-09-3DP, reaction products with anions 147025-68-1DP, reaction products with anions
 - RL: PREP (Preparation)
- (preparation of, for presensitized lithog. plates)
- IT 143932-43-8P
 - RL: PREP (Preparation)
- (preparation of, for presensitized lithog. plates containing diazo
- IT 132459-36-0P, Acrylonitrile-ethyl acrylate-N-(4-

hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate copolymer

RL: PREP (Preparation)

(preparation of, presensitized lithog. plates containing diazo resins and)

T 7646-85-7D, Zinc chloride, reaction products with diazo resins 16941-11-0D, Ammonium hexafluorophosphate, reaction products with diazo resins 25417-20-3D, Sodium dibutylnaphthalenesulfonate, reaction products with diazo resins

RL: DEV (Device component use); USES (Uses) (presensitized lithog. plates containing)

IT 37321-70-3

RL: USES (Uses)
(pretreatment of, for presensitized lithog. plate substrates)

L12 ANSWER 26 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1993:157975 CAPLUS

DN 118:157975

OREF 118:26903a,26906a

ED Entered STN: 13 Apr 1993

- TI Preparation of lithographic printing plate using aqueous alkali solutions IN Koike, Akinobu; Sakaki, Hirokazu
- PA Fuji Photo Film Co., Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-32

ICS G03F007-00

TD 04205066

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

10021012

APPLICATION NO.

TD 1001 40030

[I,C*]; G03F0007-021 [I,A]; G03F0007-09 [I,C*];

DATE

KIND DATE

FAN.CNT 1 PATENT NO.

ET OF	04203300		Δ.	TOOCT	012	UE	1991-4	2032	12210214	
JP	2632090		B2	19970	716					
PRAI JP	1991-498	39		19910	314					
CLASS										
PATENT	NO.	CLASS	PATENT	FAMILY	CLASS	IFI(CATION	CODES		
JP 0428	35966	ICM	G03F00	7-32						
		ICS	G03F00	7-00						
		IPCI	G03F000	07-32 [ICM, 51	; G	03F0007	-00 []	CS,51	
		IPCR	G03F000	07-00 i	I,C*1;	G0:	3F0007-	00 IÌ,	A]; G03F0007-016	

G03F0007-09 [I,A]; G03F0007-32 [I,C*]; G03F0007-32 [I,A]

AB A presensitized lithog. plate, prepared by forming a photosensitive layer containing a diazo resin and an oleophilic polymer on an Al support

containing Cu 0.015-0.03 weight%, is imagewise exposed and developed with an aqueous alkali solution of pH 212 containing no organic solvent to give a

lithog. printing plate. The printing plate shows good printing durability, and the method prevents generation of scums in developing bath during

```
development.
    presensitized lithog plate plate making; alkali aq development lithog
    plate; aluminum support copper lithog plate
     Lithographic plates
        (presensitized, manufacture of, in alkali development, aluminum
substrate
     125785-09-3DP, reaction products with zinc sulfate and anions
     126033-29-2DP, reaction products with zinc sulfate and anions
     143932-42-7DP, 4-Diazodiphenylammonium sulfate-formaldehyde-phenoxyacetic
     acid copolymer, reaction products with zinc sulfate and anions
    RL: PREP (Preparation)
        (preparation of, presensitized lithog. plate containing)
     132459-36-0P, Acrylonitrile-ethyl acrylate-N-(4-
     hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate
     copolymer 143932-43-8P
     RL: PREP (Preparation)
        (preparation of, presensitized lithog, plate containing diazo resin
and)
     7646-85-7D. Zinc chloride, reaction products with diazo resins
     16941-11-0D, Ammonium hexafluorophosphate, reaction products with diazo
            25417-20-3D, Sodium dibutylnaphthalenesulfonate, reaction
     products with diazo resins
     RL: DEV (Device component use); USES (Uses)
        (presensitized lithog. plate containing)
     37321-70-3
    RL: USES (Uses)
        (presensitized lithog. plate substrate)
L12 ANSWER 27 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
    1993:157974 CAPLUS
AN
     118:157974
DN
OREF 118:26903a,26906a
ED
   Entered STN: 13 Apr 1993
ΤI
    Manufacture of lithographic printing plate using aqueous alkali solutions
IN
   Koike, Akinobu; Sakaki, Hirokazu
PΑ
   Fuji Photo Film Co., Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 10 pp.
SO
    CODEN: JKXXAF
DT
    Patent
LA
    Japanese
IC
    ICM G03F007-32
     ICS G03F007-00
CC
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
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FAN.CNT 1	C IIOCC	5565)				
PATENT NO.		KIND	DATE	AP	PLICATION NO.	DATE
PI JP 04285965 PRAI JP 1991-498 CLASS		A	19921012 19910314		1991-49838	19910314
PATENT NO.	CLASS	PATENT	FAMILY CL	ASSIFI	CATION CODES	
JP 04285965	ICM ICS	G03F007				

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G03F0007-32 [ICM,51; G03F0007-00 [ICS,5]
                 TPCT
                 IPCR G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-32
                        [I,C*]; G03F0007-32 [I,A]
     A presensitized lithog, plate, prepared by forming a photosensitive
     layer containing a diazo resin and an oleophilic polymer on an Al
support the
     surface of which is electrolytically coarsened in a HCl solution using
a.c.
     of c.d. 20-48 A/dm2, is imagewise exposed and developed with an aqueous
alkali
     solution of pH ≥12 containing no organic solvent to give a lithog.
printing
     plate. The printing plate shows good printing durability.
     presensitized lithog plate plate making; alkali aq development lithog
     plate
IT
     Lithographic plates
        (presensitized, electrochem. coarsening substrate of, for alkali
        development)
     37321-70-3
     RL: USES (Uses)
        (electrochem. coarsening of, presensitized lithog. plate substrate)
     125785-09-3DP, reaction products with zinc sulfate and anions
     126033-29-2DP, reaction products with zinc sulfate and anions
     RL: PREP (Preparation)
        (preparation of, presensitized lithog. plate containing)
     132459-36-0P, Acrylonitrile-ethyl acrylate-N-(4-
     hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate
     copolymer
                143932-43-8P
     RL: PREP (Preparation)
        (preparation of, presensitized lithog, plate containing diazo resin
and)
     7646-85-7D, Zinc chloride, reaction products with diazo resins
     16941-11-0D, Ammonium hexafluorophosphate, reaction products with diazo
            25417-20-3D, Sodium dibutylnaphthalenesulfonate, reaction
     products with diazo resins
     RL: DEV (Device component use); USES (Uses)
        (presensitized lithog, plate containing)
L12 ANSWER 28 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
    1993:136271 CAPLUS
DN
    118:136271
OREF 118:23313a,23316a
ED
    Entered STN: 30 Mar 1993
ΤТ
     Photosensitive printing plate containing o-naphthoguinone
     diazide and acrylic copolymers
     Tomita, Koji; Nakai, Hideyuki; Ishii, Nobuyuki; Sasaki, Mitsuru
IN
    Konica Co., Japan; Mitsubishi Kasei Corp.
Jpn. Kokai Tokkyo Koho, 16 pp.
PA
SO
     CODEN: JKXXAF
DT
    Patent
LA
    Japanese
IC
     ICM G03F007-023
     74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     Section cross-reference(s): 35
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FAN.CNT 1
                  KIND DATE APPLICATION NO. DATE
    PATENT NO.
PI JP 04155341 A 19920528 JP 1990-279997 19901018
PRAI JP 1990-279997 19901018
CLASS
PATENT NO.
              CLASS PATENT FAMILY CLASSIFICATION CODES
   ______
JP 04155341
              ICM G03F007-023
               IPCI G03F0007-023 [ICM, 5]
                IPCR G03F0007-023 [I,C*]; G03F0007-023 [I,A]
AB
   A photosensitive printing plate consists of a
    photosensitive composition containing (a) o-naphthoquinone diazide, (b) a
    copolymer having a structure-repeating unit [CH2CR1CO2(X)1Z] (R1 = H, Me;
    Z = alkyl (meth)acrylate-containing polymer component (number-average
mol.
    weight≥100), where the alkyl group may have a C≥2 substituent;
    X = bivalent linkage group; 1 = 0,1], and (c)a copolymer having a
     structure-repeating unit [CR6R7CR8CONR9(X)nYOH (R6, R7 = H, halo, alkvl,
     aryl, CO2H or its salt; R8 = H, halo, alkyl, aryl; R9 = H, alkyl, aryl,
     aralkyl; Y = arom group; X = bivalent organic group; n = 0-5]. The
    photosensitive printing plate provides excellent resistance to
    processing chems, and lipophilicity towards fatty ink.
    photosensitive printing plate; naphthoguinone diazide
    photosensitive printing plate; acrylic copolymer
    photosensitive printing plate
ΤТ
   Printing plates
       (photosensitive, containing naphthoquinone diazide and acrylic
       copolymers, for high chemical resistance and lipophilicity to ink)
     93641-24-8
     RL: TEM (Technical or engineered material use); USES (Uses)
       (acid-generating agent, photosensitive printing plate containing)
    146359-10-6
     RL: TEM (Technical or engineered material use); USES (Uses)
       (photosensitizer, photosensitive printing plate
       containing)
тт
    34443-04-4P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
       (preparation and copolymn, of, with Me methacrylate and
vinylpyrrolidone)
IT
    109921-98-4D, reaction products with glycidyl methacrylate
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of, as binder, photosensitive printing plate containing)
    29757-02-6P 146447-77-0P 146447-78-1P
IT
     146447-79-2P
     RL: SPN (Synthetic preparation); TEM (Technical or engineered material
     use); PREP (Preparation); USES (Uses)
       (preparation of, as binder, photosensitive printing plate containing)
L12 ANSWER 29 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    1993:113214 CAPLUS
DN
    118:113214
OREF 118:19565a, 19568a
ED Entered STN: 19 Mar 1993
```

- Development of diazo resin-containing photosensitive material
- IN Koike, Akinobu; Kita, Nobuyuki
- PA Fuji Photo Film Co., Ltd., Japan
- Jpn. Kokai Tokkyo Koho, 18 pp. SO
 - CODEN: JKXXAF
- DT Patent
- T.A Japanese ΙĊ ICM G03F007-30
- ICS G03F007-00
- 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PA	TENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP	04217255	A	19920807	JP 1990-403794	19901219
	JP	2640573	B2	19970813		
PRAI	JP	1990-403794		19901219		
CLAS	S					

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 04217255	ICM ICS IPCI IPCR	G03F007-00 G03F007-00 G03F0007-30 [ICM,5]; G03F0007-00 [ICS,5] G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-30

- [I,C*]; G03F0007-30 [I,A] AR A presensitized lithog. plate, comprising a support with a coating of a photosensitive layer containing an aromatic diazonium compound having ≥1 group selected from CO2H, phenolic OH, sulfonic acid, sulfinic
- acid, and P oxygen acid groups, is imagewise exposed and developed with an
- aqueous alkali developing solution of pH 8-12 at 25° containing no organic
- solvent. The development can be carried out safely. Thus, an etched and anodized Al substrate was coated with a composition containing a diazo resin prepared
- from p-hydroxybenzoic acid, 4-diazodiphenylammonium sulfate, paraformaldehyde, and Na dibutylnaphthalenesulfonate, an oleophilic polymer, and additives, and the presensitized plate was imagewise exposed and developed with a Na silicate aqueous solution (pH 11.6) to give a printing
- plate producing high quality prints without greasing.
- diazo resin photosensitive material development; lithog plate ag
- alkali development Lithographic plates
- (presensitized, diazo resin containing, developing method for, using
- organic solvent)
- 25155-30-0D, Sodium dodecylbenzenesulfonate, reaction products with diazo resin 25417-20-3D, Sodium dibutylnaphthalenesulfonate, reaction
- products

no

with diazo resins 125785-09-3D, reaction products with sodium dibutylnaphthalenesulfonate 126033-29-2D, reaction products with sodium dibutylnaphthalenesulfonate 132459-36-0, Acrylonitrile-ethyl acrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid-methyl

methacrvlate-N-(4-hydroxyphenyl)acrylamide-methacrylic acid-methyl methacrylate copolymer 143932-42-7D, 4-Diazodiphenylammonium sulfate-formaldehyde-phenoxyacetic acid copolymer, reaction products with sodium dibutylnaphthalenesulfonate 143932-43-8 143963-00-2D, reaction products with sodium dibutylnaphthalene sulfonate 143963-01-3D, reaction products with sodium dodecylbenzenesulfonate 143963-04-6D, reaction products with sodium dibutylnaphthalene sulfonate 146248-74-0D, reaction products with dibutylnaphthalene sulfonate RL: USES (Uses) (aqueous alkali-developable photosensitive composition containing, for lithog. plate) L12 ANSWER 30 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN AN 1992:581848 CAPLUS DN 117:181848 OREF 117:31209a,31212a ED Entered STN: 01 Nov 1992 TI Presensitized lithographic plate containing aromatic diazonium compound Koike, Akinobu; Kita, Nobuyuki IN Fuji Photo Film Co., Ltd., Japan SO Eur. Pat. Appl., 42 pp. CODEN: EPXXDW Patent LA English IC ICM G03F007-021 ICS G03F007-115; G03F007-32 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE

	IIIIIIII NO.		KILIND	DITTE		DICHIION NO.	DITTE
PI	EP 487343		A1	19920527	EP	1991-310746	19911121
	EP 487343		B1	19990428			
	R: DE,	CD					
	JP 05005984		2	10020114	TD	1991-147327	19910619
					ŰΡ	1991-14/32/	19910019
PRAI	JP 1990-317			19901121			
	JP 1991-147	327	A	19910619			
CLAS	S						
	ENT NO.	CIRCC	DATENT	FAMILY CLASS	TET	CATION CODES	
	LITT 110.	CLITOD		LIMILDI CIMIDO	11 10	JIII ION CODED	
	40::040	7014	0000000	001			
EP	487343	ICM					
				-115; G03F00			
		IPCI	G03F000	7-021 [ICM, 5]; (G03F0007-016 [ICM, 5,	C*];
			G03F000	7-115 [TCS.5	1: (303F0007-09 [ICS.5.0	:*1:
				7-32 [ICS,5]	., .		,
		IPCR			001	POODS OF ST. 003	mana 016
		IPCK				BF0007-00 [I,A]; G03	
						I,A]; G03F0007-09 []	
			G03F000	7-115 [I,A];	G0:	3F0007-32 [I,C*]; G0	3F0007-32
			[I,A]				
		ECLA		/021 · G03E00	7/1	15: G03F007/32A	
TD	05005984	IPCI				03F0007-021 [ICS,5];	
		1501	G03F000	/-00 [ICM, 5]	, 6	J3E0007-021 [1C5,5];	
GU3F	0007-016						
			[ICS, 5,	C*]; G03F000	7-32	2 [ICS,5]	

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10/593972 BY Primary Exr. Cynthia Hamilton
                       G03F0007-00 [I,C*]; G03F0007-00 [I,A]; G03F0007-016
                 TPCR
                        [I,C*]; G03F0007-021 [I,A]; G03F0007-09 [I,C*];
                       G03F0007-115 [I,A]; G03F0007-32 [I,C*]; G03F0007-32
                        [I,A]
     A presensitized lithog, plate which can be developed with an aqueous
alkaline
    solution substantially free from organic solvents comprises, on a
substrate, a
     photosensitive layer comprising an aromatic diazonium compound having
     at least one group selected from the group consisting of carboxyl,
    phenolic hydroxyl, sulfonic, sulfinic, and phosphorus oxyacid groups and
а
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- mat layer having projections which are provided sep. from each other. The
- presensitized lithog, plate provides excellent vacuum contact with an original so that the time required for vacuum contact is shortened and fine halftone dots are faithfully reproduced.
- presensitized lithog plate arom diazonium compd
- IT Epoxy resins, uses
 - Phenolic resins, uses
 - Polvamides, uses
 - RL: USES (Uses)
- (mat layers containing, for presensitized lithog, plates containing aromatic
 - diazonium compds.)
- Vinyl acetal polymers
 - RL: USES (Uses)
- (butyrals, mat layers containing, for presensitized lithog. plates containing
- aromatic diazonium compds.)
- Lithographic plates
 - (presensitized, containing photosensitive layers containing aromatic diazonium compds. and top mat layers for providing excellent vacuum contact with originals)
- 9002-85-1, Poly(vinylidene chloride) 9003-01-4, Poly(acrylic acid) 9003-05-8, Polyacrylamide 9003-09-2, Poly(vinyl methyl ether) 9003-20-7, Poly(vinyl acetate) 9003-53-6 25322-68-3
- RL: USES (Uses) (mat layers containing, for presensitized lithog. plates containing
- aromatic diazonium compds.)
- 116543-69-2 137843-04-0 143932-43-8
- RL: USES (Uses)
 - (photosensitive compns. containing aromatic diazonium compds. and, for presensitized lithog. plates with top mat layers)
- 89-25-8D, reaction products with diazomethoxydiphenylamine bisulfate-dihydroxyphosphinylpropanal-formaldehyde copolymer
- 9070-36-4D,
- reaction products with sodium dibutylnaphthalenesulfonate 16941-11-0D, reaction products with p-diazodiphenylamine sulfate-formaldehyde copolymer
 - 25155-30-0D, reaction products with diazodiphenylamine sulfate-phenoxyacetic acid-formaldehyde copolymer 25417-20-3D, reaction products with p-diazodiphenylamine sulfate-aldehydic acids-formaldehyde copolymer 125785-09-3D, reaction products with sodium

IPCI

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dibutylnaphthalenesulfonate 126033-29-2D, reaction products with sodium
    dibutylnaphthalenesulfonate 136999-79-6D, reaction products with sodium
    dibutylnaphthalenesulfonate 143932-42-7D, reaction products with sodium
    dibutylnaphthalenesulfonate and sodium didecylbenzenesulfonate
    143963-00-2D, reaction products with sodium dibutylnaphthalenesulfonate
    143963-01-3D, reaction products with phenylmethylpyrazolone and sodium
    dodecylbenzenesulfonate 143963-04-6D, reaction products with sodium
    dibutylnaphthalenesulfonate
    RL: USES (Uses)
       (photosensitive compns. containing, for presensitized lithog.
       plates with top mat layers)
L12 ANSWER 31 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
    1992:417330 CAPLUS
   117:17330
OREF 117:3031a,3034a
   Entered STN: 11 Jul 1992
    Aromatic diazo compound condensed resin composition for
    photosensitive printing plate
    Kamiva, Akihiko
    Fuji Photo Film Co., Ltd., Japan
    Jpn. Kokai Tokkyo Koho, 15 pp.
    CODEN: JKXXAF
    Patent
    Japanese
    ICM G03F007-021
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
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PAN.CNI I					
PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI JP 03089250		A	19910415	JP 1989-225599	1989083
PRAI JP 1989-225	599		19890831		
CLASS					
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 03089250	ICM	G03F007	-021		

IPCR G03F0007-016 [I.C*]; G03F0007-021 [I.A] The title composition contains a condensed resin from an aromatic compound

substituted with CO2H and/or OH and an aromatic diazo compound having a counter

anion of a long chain alkyl-substituted aromatic sulfonic acid. Thus, p-hydroxybenzoic acid, 4-diazo-4'-methoxydiphenylamine sulfate, and paraformaldehyde were treated then mixed with Na dodecylbenzenesulfonate to give the title diazo resin. Then, a mixture of the resin, N-(4-hydroxyphenyl)acrylamide-acrylonitrile-Et acrylate-methacrylic acid copolymer, Victria Pure Blue BOH, Jurymer AC 10L, malic acid, and 2-methoxyethanol was coated on an Al plate, imagewise exposed, and developed to give a lithog. printing plate, which gave blue clear printed image without staining.

G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*]

photosensitive lithog printing plate; azo formalin resin photosensitive printing; hydroxybenzoic acid azomethoxydiphenylamine formalin copolymer; alkylsulfonic acid counter

DN

ED

IN

PA

DT

LA

IC

CC

anion

Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses) (diazo-substituted, photosensitive resin containing, for printing plate, prevention of staining in)

Printing plates

(photosensitive resin for, condensed azo compound having alkylsulfonic acid anion as, prevention of staining in)

137020-35-0

RL: TEM (Technical or engineered material use); USES (Uses) (diazo condensed resin containing, for photosensitive printing plate, prevention of staining in)

125766-04-3D, reaction products with dodecylbenzenesulfonic acid salt 140939-73-7D, reaction products with dioctylnaphthalenesulfonic acid salt 140939-74-8D, reaction products with dodecylbenzenesulfonic acid salt 140939-76-0D, reaction products with dodecylbenzenesulfonic acid salt 140939-77-1D, reaction products with dioctylnaphthalenesulfonic acid RL: TEM (Technical or engineered material use); USES (Uses)

(photosensitive resin containing, for printing plate, prevention of staining in) 27176-87-0D, reaction products with copolymers 140946-22-1D, reaction

products with copolymers RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive resins containing, for printing plates, prevention of staining in)

L12 ANSWER 32 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN

1992:48955 CAPLUS DM

116:48955

OREF 116:8307a,8310a

ED Entered STN: 08 Feb 1992

Light-sensitive composition and presensitized plate for use in making lithographic printing plates

IN Kamiya, Akihiko; Koike, Akinobu; Imai, Masanori

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 48 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-021

74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN. CNT 1 PATENT NO. KIND DATE APPLICATION NO. ---------A1 19901128 EP 1990-305481 B1 19940330 EP 399755 19900521 EP 399755 R: DE, GB R: DE, GB
JP 03002867 A 19910109 JP 1989-137890
JP 03002868 A 19910109 JP 1989-137891
US 5112743 A 1992012 US 1990-523997
JP 04018559 A 19920122 JP 1990-128379
PRAI JP 1989-137890 A 19890531
JP 1989-137891 A 19890531
JP 1989-137891 A 19890531 19890531 19890531 19900516 19900518

JP 1990-100	886	19900417
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 399755 JP 03002867	IPCI IPCR	G03F007-021 G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*] G03F0007-016 [I,C*]; G03F0007-021 [I,A] G03F0007-00 [ICM,5]; G03F0007-021 [ICS,5];
G03F0007-016	IPCR	[ICS,5,C*] G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-00
	11 011	[I,C*]; G03F0007-00 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-11 [I,C*]; G03F0007-11 [I,A]
JP 03002868 G03F0007-016	IPCI	G03F0007-00 [ICM,5]; G03F0007-021 [ICS,5];
	IPCR	G03F0007-016 [I,C*]; G03F0007-021 [I,A]; G03F0007-00 [I,C*]; G03F0007-00 [I,A]
US 5112743	IPCI IPCR NCL ECLA	G03C0001-60 [ICM,5]; G03C0001-52 [ICM,5,C*] G03F0007-016 [I,C*]; G03F0007-021 [I,A] 430/175.000; 430/176.000; 430/281.100; 430/287.100 G03F007/021
JP 04018559	IPCI IPCR	G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*] G03F0007-016 [I,C*]; G03F0007-021 [I,A]
GI		

AB A photosensitive composition for use in preparing a presensitized lithog, plate comprises a diazo resin which has ≥1 repeating unit represented by the formula I (R1 = H, OH, alkyl, alkoxy, carboxyl, or a carboxy ester group; R2 = carboxyl or a group having ≥1 carboxyl group; R3, R4 = H, alkyl, or alkoxy; X- = an anion; Y = NH, O, or S), a polymerizable compound having an ethylenically unsatd. bond, a photopolymerizable initiator, and an alkaline solution-soluble or -swellable

polymer having film-forming ability. The diazo resin is readily prepared by

condensing a monomer with a 4-diazodiphenylamine, 4-diazodiphenyl ether, or 4-diazodiphenyl sulfide skeleton with an aldehyde having the formula HOZCYICHO (YI = single bond, a divalent aliphatic or aromatic hydrocarbon group,

or a divalent heterocyclic group). A presensitized lithog, plate using the photosensitive composition shows high sensitivity and good adhesion between the photosensitive composition and the substrate and provides a lithog, plate having high printing durability and free of background contamination.

ST diazo resin presensitized lithog plate

IT Lithographic plates

(presensitized, photosensitive compns. containing diazo resins for)

II 90-94-8, Michler's ketone 811-32-5 4986-89-4, Pentaerythritol tetraacrylate 15625-89-5, Trimethylolpropane triacrylate 19878-93-4 63149-07-5 77084-52-7 77945-59-6 77945-61-0, Methyl methacrylic acid copolymer entacrylic acid copolymer 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 109115-61-9 115168-59-7 127115-35-9 131663-16-6 131653-21-3 131690-07-8 131690-09-0 131690-09-0 131690-01-3 137020-32-7 137020-33-8 137020-34-9 137020-35-0

(photosensitive compns. containing diazo resins and, for presensitized lithog. plates)

(photosensitive compns. containing, for presensitized lithog. plates)

- L12 ANSWER 33 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1992:31559 CAPLUS
- DN 116:31559
- OREF 116:5249a,5252a
- ED Entered STN: 24 Jan 1992
- TI Imaging method by transfer for color proof preparation
- IN Shimizu, Kunio; Sasa, Nobumasa; Watabe, Manabu; Urano, Toshiyoshi; Masuda,
- Tetsuya
- PA Konica Co., Japan; Mitsubishi Kasei Corp.
- SO Jpn. Kokai Tokkyo Koho, 11 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM G03F007-004
- ICS G03F003-10; G03F007-004
- C 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

Section cross-reference(s): 37

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 03154057 PRAI JP 1989-294434 CLASS	A	19910702 19891113	JP 1989-294434	19891113

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 03154057	ICM ICS IPCI	G03F007-004 G03F003-10; G03F007-004 G03F0007-004 [ICM,5]; G03F0003-10 [ICS,5];

G03F0007-004

[ICS, 5]

IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0003-10 [I,C*]; G03F0003-10 [I,A]

AB The title method involves imagewise exposure of materials having a substrate, a rubber laver, a parting laver, and a photosensitive transparent layer containing o-quinonediazide compound and polymers having aromatic

OH group in side chains with softening point ≤70°,

developing, appln. of toners on the material, and transfer of toner image to receptor sheet. These materials for fabrication of color proofs provide images closely alike printed materials, by transfer mainly by pressure. Thus, a PET film was coated with a 20-µm-thick isoprene-styrene rubber layer, and then with a silicone parting layer. A copolymer was obtained by reaction of N-(4-p-hydroxyphenyl)-acrylamide

(prepared from p-hydroxyaniline and acrylic chloride) 26.58, Bu acrylate 44.86, and 2-ethylhexyl thioglycolate 3.57 g. A composition containing

1.15 a

ester of 2,3,4-trihydroxybenzoquinone with 1,2-naphthoquinonediazide-5sulfonic acid, and 3.85 g above copolymer, and Et cellosolve was applied on the rubber layer and dried to form a 1-µm-thick layer. These materials were sep. exposed to color-separated images, were rubbed with

toner consisting of 1:1 mixture of cellulose acetate particles and particles

of cellulose acetate containing carbon black or coloring agents. Successive

transfer of resp. images to an art paper sheet by pressurized roller gave fine color proof. Equally good result was obtained using less smooth paper sheet.

- ST imaging material color pressure transfer
- Photoimaging compositions and processes (for color proofs, transfer of tonered color-separated images,
- to printed products)
- Rubber, synthetic
- RL: PREP (Preparation)

(photoimaging materials having layer of, for imaging by transfer of toner images, for preparation of color proofs, Cariflex

TR1107

similarity

as) 128319-90-4 137885-69-9

RL: USES (Uses)

(photoimaging materials containing guinonediazide compds. and, for color proof preparation, transfer of toner image)

5610-94-6

RL: USES (Uses)

(photoimaging materials containing, for color proof preparation, imaging by successive toner image transfer)

- L12 ANSWER 34 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- 1992:31558 CAPLUS
- DN 116:31558
- OREF 116:5249a,5252a
- Entered STN: 24 Jan 1992
- Materials for imaging by pressure transfer
- IN Shimizu, Kunio; Sasa, Nobumasa; Watabe, Manabu; Urano, Toshiyoshi; Masuda,
- Tetsuva
- PA Konica Co., Japan; Mitsubishi Kasei Corp.
- SO Jpn. Kokai Tokkvo Koho, 11 pp.
- CODEN: JKXXAF
- DT Patent
- LA Japanese TC:
- ICM G03F007-004
 - TCS G03F003-10
- 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 37

PATENT NO.		KIND	DATE	APPLICATION NO	O. DATE
PI JP 03154056 PRAI JP 1989-294 CLASS	433	A	19910702 19891113	JP 1989-29443	3 19891113
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	S
JP 03154056	ICM ICS IPCI IPCR	G03F000	3-10 07-004 [ICM,		[ICS,5] [I,A]; G03F0003-10

- AB The title materials have a substrate, a rubber layer, a parting layer, and
- a photosensitive colored laver containing o-quinonediazide compound and polymers having aromatic OH group in side chains with softening point ≤70°. These materials for fabrication of color proofs provide images closely alike printed materials, by transfer by pressure not using heat. Thus, a PET film was coated with a 20-μm-thick isoprene-styrene rubber layer, and then with a silicone parting layer. A copolymer was obtained by reaction of N-(4-p-hydroxyphenyl)-acrylamide (prepared from p-hydroxyaniline and acrylic chloride) 26.58, Bu acrylate 44.86, and 2-ethylhexyl thioglycolate 3.57 g. A composition containing ester of
- 2,3,4-trihydroxybenzoquinone with 1,2-naphthoquinonediazide-5-sulfonic acid 1.15, above copolymer 3.85, carbon black 0.99 g and Et cellosolve was

10/593972 BY Primary Exr. Cynthia Hamilton applied on the rubber layer and dried to form a 1-um-thick layer. Three other materials were prepared using cyan, magenta or yellow dye instead of carbon black. Exposure of these materials through color-separated positives and developing gave 4 color-separated images. Transfer of the images to an art paper sheet by pressurized roller gave fine color proof. Equally good result was obtained using less smooth paper sheet. ST imaging material color pressure transfer ΙT Photoimaging compositions and processes (for color proofs, transfer of color-separated images by pressure, similarity to printed products) тт Rubber, synthetic RL: PREP (Preparation) (photoimaging materials having layer of, for image transfer by pressure, for preparation of color proofs, Cariflex TR1107 as) ΙT 137885-69-9 RL: USES (Uses) (photoimaging materials containing quinonediazide compds. and, for color proof preparation, image transfer by pressure) 5610-94-6 RL: USES (Uses) (photoimaging materials containing, for color proof preparation, image transfer by pressure) L12 ANSWER 35 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN 1992:13408 CAPLUS 116:13408 OREF 116:2315a,2318a ED Entered STN: 11 Jan 1992 Image-forming method using diazo resin photosensitive layer for organic-free solvent development IN Kamiya, Akihiko PA Fuji Photo Film Co., Ltd., Japan SO Jpn. Kokai Tokkyo Koho, 13 pp. CODEN: JKXXAF DT Patent LA Japanese IC ICM G03F007-021 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) FAN CNT 1

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI JP 03163550 PRAI JP 1989-303 CLASS		A	19910715 19891122	JP 1989-303704	19891122
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 03163550	ICM IPCI IPCR		07-021 [ICM,	5]; G03F0007-016 [ICM]; G03F0007-021 [I,A]	,5,C*]

GI

AB The title method comprises imagewise exposing the photosensitive layer containing copolycondensed diazo resin having I and Z1CHR4 (R, R1-2 = H.

alkyl, alkoxy; R3-4 = H, alkyl, phenyl; X = PF6, BF4, Z = NH, S, O; Z1 = (substituted) phenylene or naphthylene with ≥ 1 substituent selected from sulfinic acid, sulfinate, sulfonic acid, sulfonate) as structural units, and developing with an aqueous alkali developer free of organic solvents.

The method gives clear images without stains. Thus, coarsened Al plate was coated with a photosensitive layer containing a reaction product of Na benzensulfonate-4-diazo-4'-methoxydiphenylammonium hexafuorophosphate-paraformaldehyde copolymer and zinc chloride, and acrylonitrile-Bt acrylate-N-(4-hydroxyphenyl)methacrylamide-methacrylic acid copolymer to give a presensitized lithog. plate, which was developed using an aqueous alkali developer containing Na silicate.

T presensitized lithog plate diazo resin; alkali aq developer lithog plate

IT Lithographic plates

(presensitized, processing of, containing diazo resin, aqueous alkali developer

IT 77833-95-5, Acrylonitrile-ethyl

acrylate-N-(4-hydroxyphenyl)methacrylamide-

methacrylic acid copolymer 136826-56-7D, reaction product with zinc chloride 137843-01-7D, reaction product with zinc chloride

137843-02-8D, reaction product with zinc chloride 137843-03-9D, reaction

product with zinc chloride 137843-04-0 138007-88-2D, reaction product with zinc chloride

RL: USES (Uses)

(photosensitive layer containing, in presensitized lithog. plate)

- L12 ANSWER 36 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1991:523882 CAPLUS
- DN 115:123882
- OREF 115:21043a, 21046a
- ED Entered STN: 23 Sep 1991
 - I Preparation of transferred color images

- IN Shimizu, Kunio; Sasa, Nobumasa; Watabe, Manabu; Urano, Toshoshi; Mayama, Shinya; Masuda, Tetsuya
- PA Konica Co., Japan; Mitsubishi Kasei Corp.
- SO Jpn. Kokai Tokkyo Koho, 10 pp.
 - CODEN: JKXXAF
- DT Patent
- LA Japanese IC ICM G03F007-004
 - ICS G03F003-10
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN CNT 1

FAN.CNT I								
PATENT NO.		KIND	DATE		API	PLICATION N	ο.	DATE
PI JP 02275454		A	19901	109	JP	1989-97067		19890417
PRAI JP 1989-9706	7		19890	417				
CLASS								
PATENT NO.	CLASS	PATENT	FAMILY	CLASS	IFI	CATION CODE	S	
JP 02275454	ICM	G03F007	-004					
	ICS	G03F003	-10					
	IPCI	G03F000	7-004	[ICM, 5]]; (303F0003-10	[ICS, 5]	
	IPCR	G03F000	7-004	[I,C*]	; G(03F0007-004	[I,A]; G	03F0003-10

- [I,C*]; G03F0003-10 [I,A]

 B In the title preparation by an imagewise exposure of an image-forming material
- having on a support an image-forming layer containing a coloring agent and \boldsymbol{a}
 - photosensitive composition, developing the exposed material to form color images, and transferring the color images to a receptor to form transferred images, the photosensitive composition contains a graft copolymer having an acrylic acid polymer on its branched components.
- ST color proof photoimaging compn polymer
- IT Printing plates
 - (color proofs for, image-forming materials with photosensitive compns. containing graft polymer binders for producing)
- IT 128417-61-8, Butyl acrylate polymer RL: USES (Uses)
 - (image-forming materials containing, for forming color proofs) 135732-41-1 135756-89-7 136005-34-0
- RL: USES (Uses)

(image-forming materials with photosensitive compns. containing, for forming color proofs)

- L12 ANSWER 37 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1991:111929 CAPLUS
- DN 114:111929
- OREF 114:18885a,18888a
- ED Entered STN: 23 Mar 1991
- TI Preparation of lithographic plates comprising development using aqueous alkali
- IN Fumiya, Shinichi; Katahashi, Eriko; Uehara, Masabumi; Matsubara, Shinichi
- PA Mitsubishi Kasei Corp., Japan; Konica Co.
- SO Jpn. Kokai Tokkyo Koho, 13 pp.
- CODEN: JKXXAF

- DT Patent
- LA Japanese IC ICM G03F007-00
- ICS G03F007-004
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE
PI JF 02189544 A 19900725 JP 1989-10738 19890119
PRAI JP 1989-10738 19890119

CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

JP 02189544 ICM 603F007-00
ICS 603F007-004

IPCI G03F0007-00 [ICM,5]; G03F0007-004 [ICS,5]
IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-00
[I,C*]; G03F0007-00 [I,A]

AB A presensitized lithog. plate has a photosensitive layer containing a copolycondensation product comprising an aromatic compound having ≥1 group selected from carboxyl, OH, sulfonic acid, sulfonic acid base,

sulfinic acid, and sulfinic acid base groups and an aromatic diazonium compound

as structural units, and an oleophilic polymer on a support. The plate

imagewise exposed and then developed with an aqueous alkali of pH \geq 12 containing no organic solvent to give a lithog. plate. The method provides high

quality lithog. plates without using organic solvents. Thus, a pretreated Al

plate was coated with a composition containing a diazo resin prepared from Na

benzenesulfonate, 4-diazo-4'-methoxydiphenylamine.H2504, and paraformaldehyde and N-(4-hydroxyphenyl)methacrylamide-acrylonitrile-Me methacrylate-Et acrylate-methacrylic acid copolymer, and the obtained plate was imagewise exposed and developed with an aqueous solution containing Na

silicate, NaOH, exposed and developed with an aqueous solution containing Na

silicate, NaOH, and Na2SO3 to give a lithog. plate.

ST presensitized lithog plate diazo resin; oleophilic polymer presensitized lithog plate; alkali soln development lithog plate

IT Lithographic plates

(containing aromatic diazonium compds., developed with aqueous alkali)
II 1310-73-2, Sodium hydroxide, uses and miscellaneous 6834-92-0
7757-83-7, Sodium sulfite

RL: USES (Uses)

(lithog, plate developing solution containing)

IT 77833-95-5, Acrylonitrile-ethyl

acrylate-N-(4-hydroxyphenyl)methacrylamide-

Late-m-(4-nyaroxypennyl,metnacrylamidemethacrylic acid copolymer 125785-09-3, 4-Diazodiphenylamine sulfate-p-hydroxybenzoic acid-paraformaldehyde copolymer 126033-28-1 126033-29-2, 4-Diazodiphenylamine sulfate-paraformaldehyde-sodium benzensulfonate copolymer 126034-88-6, 4-Diazo-4'-methoxydiphenylamine

sulfate-paraformaldehyde-sodium benzenesulfonate copolymer

```
132459-36-0. Acrylonitrile-ethyl acrylate-N-(4-
    hydroxyphenyl)methacrylamide-methacrylic acid-methyl methacrylate
    copolymer
    RL: USES (Uses)
        (lithog, plate photosensitive laver using)
L12 ANSWER 38 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
   1990:621404 CAPLUS
DN 113:221404
OREF 113:37235a,37238a
   Entered STN: 08 Dec 1990
TI Photosensitive compositions for lithographic plates
IN Uehara, Masabumi; Matsubara, Shinichi; Fumiya, Shinichi; Katahashi, Eriko
   Konica Co., Japan; Mitsubishi Kasei Corp.
    Jpn. Kokai Tokkyo Koho, 11 pp.
    CODEN: JKXXAF
    Patent
    Japanese
    ICM G03F007-021
    ICS C08F299-00; C08L101-00
     74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
     Section cross-reference(s): 38
FAN.CNT 1
                       KIND DATE
    PATENT NO.
                                          APPLICATION NO.
                                                                DATE
                        --- ----- -----
    JP 02139558
                        A 19900529 JP 1988-265844
B1 19931229 EP 1989-306904
                                                                19881021
    EP 353873
                                                                19890706
        R: DE, FR, GB
    US 5009981
                              19910423
                                         US 1990-585048
                A
                                                                19900920
PRAI JP 1988-172241 A1 19880711
JP 1988-172242 A1 19880711
JP 1988-172240 A 19880711
    US 1989-376517 B2
                              19890707
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
JP 02139558
                ICM G03F007-021
                ICS
                      C08F299-00; C08L101-00
                IPCI G03F0007-021 [ICM,5]; G03F0007-016 [ICM,5,C*];
                       C08F0299-00 [ICS,5]; C08L0101-00 [ICS,5]
                IPCR G03F0007-016 [I,C*]; G03F0007-021 [I,A]; C08F0290-00
                       [I,C*]; C08F0290-00 [I,A]; C08F0299-00 [I,C*];
                       C08F0299-00 [I.A]; C08L0101-00 [I.C*]; C08L0101-00
                       [I.A]
 EP 353873
                IPCI G03F0007-021 [ICM,5]: G03F0007-016 [ICM,5,C*]
                IPCI G03C0001-52 [ICM, 5]
US 5009981
                IPCR G03F0007-016 [I,C*]; G03F0007-021 [I,A]
                NCL 430/175.000; 430/176.000; 430/177.000
ECLA G03F007/021
```

GI

ΔN

PA

SO

DT

LA

TC

PТ

 $\ensuremath{\mathtt{AB}}$. The title compns. contain aromatic compds. with polymerizable unsatd. bonds

and a condensed diazo resin containing aromatic diazonium compds. These compns.

may also contain photopolymm. initiators, photopolymerizable monomers, and/or polymer binders having ≥1 polymerizable unsatd. bond. Excellent performance, especially high resistance to chems. and stability of sensitivity toward oxygen, are obtained. Thus, a diazo resin was obtained from 4-

hydroxyphenylmethacrylamide, 4-diazodiphenylamine sulfate, and HCHO, and was converted to a PF6 salt. A composition containing this resin, a 133.4:8.6

(weight) allyl methacrylate-methacrylic acid copolymer (unsatd. binder),

the photopolymn. initiator I, trimethylolpropane triacrylate, and other agents, was applied onto an anodized and sealed Al plate, to obtain a lithog. plate. This plate showed a sensitivity unaffected by air pumping at the time of exposure, and the obtained printing plate was

highly resistant to a plate cleaning mixture
ST lithog plate diazo oxygen effect; binder unsatd photosensitive

lithog plate

IT Lithographic plates

(photosensitive, diazo compound-based, with resistance to oxygen)

IT 59592-92-6, Acrylonitrile-2-hydroxyethyl methacrylate-methyl

methacrylic acid copolymer 77833-95-5, Acrylonitrile-ethyl

acrylate-N-(4-hydroxyphenyl)methacrylamide- methacrylic acid copolymer 90216-38-9, Allyl methacrylate-methacrylic acid copolymer 96536-79-7

122988-13-0, Acrylonitrile-ethyl acrylate-N-(4-hydroxyphenyl)methacrylamide-methyl acrylate-methacrylic acid copolymer 129542-22-9

RL: USES (Uses)

(binder, lithog. plates containing diazo compds. and, with resistance to

oxygen) IT 129343-24-4 130139-01-4 130139-02-5 130139-04-7

130139-05-8 130159-78-3 RL: USES (Uses)

(lithog. plates containing, with resistance to oxygen) 93641-24-8 97802-84-1

RL: USES (Uses)

(photopolymn. initiator, lithog. plates containing)

L12 ANSWER 39 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1990:562576 CAPLUS

DN 113:162576

OREF 113:27451a,27454a

- ED Entered STN: 27 Oct 1990
- TΙ Preparation of color proofs using color image-forming material
- Watabe, Manabu; Sasa, Nobumasa; Shimizu, Kunio; Urano, Toshoshi; Mayama, IN Shinya; Masuda, Tetsuya
- PA Konica Co., Japan; Mitsubishi Kasei Corp.
- SO Jpn. Kokai Tokkvo Koho, 13 pp.
- CODEN: JKXXAF
- DT Patent
- LA Japanese
- TC ICM G03F007-004
- ICS G03F003-10; G03F007-16
- 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ERM ONT 1

PAN.CNI I					
PATENT NO.		KIND	DATE	APPLICATION N	O. DATE
PI JP 02003045 PRAI JP 1988-151594 CLASS		A	4 19880620		
PATENT NO.	CLASS	PATENT	FAMILY CLA	SSIFICATION CODE	s
JP 02003045	ICM ICS IPCI		3-10; G03F0 07-004 [ICM		[ICS,5]; G03F0007-1
	IPCR	G03F000	7-004 [I.C	*1; G03F0007-004	[I.Al: G03F0003-10

- G03F0007-16 [I,A] The title preparation is effected by forming a colored photosensitive AB layer containing at least a photosensitive composition and a coloring agent using a coating liquid containing cyclohexanone.
- color proof imaging material manuf; cyclohexanone imaging material color

[I,C*]; G03F0003-10 [I,A]; G03F0007-16 [I,C*];

- IT Carbon black, uses and miscellaneous RL: USES (Uses)
 - (color photoimaging compns. containing, for color proof preparation)
- Photoimaging compositions and processes (containing photosensitive materials and coloring agents for color proofing)
- Printing plates IT
- (production of, photoimaging compns. for color proofing in)
- тт 108-94-1, Cyclohexanone, uses and miscellaneous
- RL: USES (Uses)
 - (coating solns. containing, for color photoimaging layers for
- color proof preparation) 4986-89-4, Pentaerythritol tetraacrylate 523-42-2, Cyanine Blue 4920
- 6358-85-6, Seika Fast Yellow H 7055 35464-74-5 68510-93-0 5281-04-9 122024-02-6 RL: USES (Uses)
- (color photoimaging compns. containing, for color proof preparation) 9003-35-4, Formaldehyde-phenol copolymer
- RL: USES (Uses)
 - (novolak, color photoimaging compns. containing, for color proof preparation)

- L12 ANSWER 40 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1990:506480 CAPLUS
- DN 113:106480
- OREF 113:17855a,17858a
- ED Entered STN: 16 Sep 1990
- TI Color image-forming material and color proofing method using the material
- IN Watabe, Manabu; Sasa, Nobumasa; Shimizu, Kunio; Urano, Toshoshi; Mayama, Shinya; Masuda, Tetsuya
- PA Konica Co., Japan; Mitsubishi Kasei Corp.
- SO Jpn. Kokai Tokkyo Koho, 11 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM G03F007-004
- ICS G03F007-004
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND DA	ATE	APPLICATION NO	DATE
PI JP 02018563 PRAI JP 1988-168324		9900122 9880706	JP 1988-16832	19880706
CLASS	-			
PATENT NO. CLASS	PATENT FAM	MILY CLASS:	IFICATION CODES	5
JP 02018563 ICM ICS IPCI	G03F007-00 G03F003-10	0	l; G03F0003-10	(TOC E)
IPCR	G03F0007-0	004 [I,C*];	G03F0007-004	[I,A]; G03F0003-10

[I,C*]; G03F0003-10 [I,A]

AB In the title material having on a support a colored photosensitive layer containing at least a photosensitive composition, a binder, and a coloring agent, the photosensitive layer contains the coloring agent 10-30%. The title method is effected by at least an imagewise exposure and development of the color image-forming material to form

color

- images and then transferring the color images to an image receptor.

 ST photosensitive color proofing material; dve image transfer color
- T photosensitive color proofing material; dye image transfer color proofing
- IT Carbon black, uses and miscellaneous RL: USES (Uses)
 - (color proofing materials having photosensitive layers containing)
- IT Printing plates
- (production of, color proofing in, photosensitive materials for)
- T 523-42-2, Cyanine Blue 4920 4986-89-4, Pentaerythritol tetraacrylate 5281-04-9 6358-85-6, Seikafast Yellow H 7055 9003-35-4, Formaldehyde-phenol copolymer 68510-93-0 128888-19-7 RL: USES (USes)
 - (color proofing materials having photosensitive layers containing)
- IT 9003-07-0, Polypropylene 25038-59-9, PET (polyester), uses and miscellaneous RL: USES (Uses)

(supports, for photosensitive color proofing materials)

- L12 ANSWER 41 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1990:468483 CAPLUS DN 113:68483
- DN 113:68483 OREF 113:11405a,11408a
- ED Entered STN: 17 Aug 1990
- TI Formation of transferred images
- IN Shimizu, Kunio; Sasa, Nobumasa; Watabe, Manabu; Ide, Koji; Mayama, Shinva;
- Masuda, Tetsuya
- PA Konica Co., Japan; Mitsubishi Kasei Corp.
- SO Jpn. Kokai Tokkyo Koho, 9 pp.
- CODEN: JKXXAF
- DT Patent LA Japanese
- IC ICM G03F007-039

PATENT NO.

- ICS G03F003-10; G03F007-004
- CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes) Section cross-reference(s): 38

KIND DATE

FAN.CNT 1

PI JP 02069749	A	19900308	JP 1988-222973	19880906
JP 2707286	B2	19980128		
PRAI JP 1988-222973		19880906		
CLASS				
PATENT NO. CLASS	PATENT	FAMILY CLAS	SSIFICATION CODES	
JP 02069749 ICM	G03F00	7-039		
ICS	G03F003	3-10; G03F00	7-004	
IPCI	G03F000	07-039 [ICM,	5]; G03F0003-10 [ICS,5]	;
00200007 004				

G03F0007-004

[ICS,5]

PCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0003-10 [I,C*]; G03F0007-033 [I,C*]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]

APPLICATION NO.

DATE

- AB The title method involves image transfer from materials with a support, and a photosensitive layer containing coloring agents, poss-working photosensitive materials and binder polymers having phenolic group-containing side chains. This method provides color proofs closely simulating the printed images, by simple transfer process. Thus, PET films coated with polypropylene were sep. coated with 1 of 4 compns., resp. containing 2,3,4-trihydroxybenzophenone esterified with 1,2-naphthoquinone-(2)-diazide-5-sulfonic acid, 26.58:44.86:3.57 (weight) N-(4-hydroxyphenyl)acrylamide-Bu acrylate-2-ethylhexyl thioglycolate copolymer, and a pigment (black, cyan, magenta or yellow). Single-color images obtained by exposure of each films to color-separated image and development were transferred to an art paper sheet, to obtain a
- colorproof
- closely similar to printed images.
- ST color transfer sheet polymer binder; printing color proof transfer material

IT Printing, nonimpact

(thermal-transfer, for colorproofs, phenol-containing polymer binders contained in, close similarity to printed image)

IT 7659-86-1D, ether with Bu acrylate-hydroxyphenyl acrylamide copolymer 128319-88-0D, ether with ethylhexyl mercaptoacetic acid

128319-89-1 128319-90-4

RL: USES (Uses)

(binder, colorproof sheet containing, for close similarity to printed image) 68510-93-0

RL: USES (Uses)

(photosensitive colorproof transfer sheet containing polymer binders and)

IT 920-46-7

ΙT

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with hydroxyaniline, binder polymer for colorproof transfer sheet from)

IT 123-30-8, p-Hydroxyaniline

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with methacryloyl chloride, binder polymer for colorproof $% \left(1\right) =\left(1\right) \left(1\right)$

transfer sheet from)

L12 ANSWER 42 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1989:487493 CAPLUS

DN 111:87493

OREF 111:14563a,14566a

ED Entered STN: 03 Sep 1989

II Colored image-forming material and process for forming colored images

IN Ide, Hiroshi; Mayama, Shinya; Masuda, Tetsuya; Sasa, Nobumasa; Watanabe, Manabu; Shimizu, Kunio

PA Mitsubishi Kasei Corp., Japan; Konica Co.

SO PCT Int. Appl., 43 pp. CODEN: PIXXD2

DT Patent

DT Patent LA Japanese

IC ICM G03C001-00

ICS G03C001-72; G03C005-08; G03F003-10; B44C001-17

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.											
	PA:	TENT NO.			KINI)	DATE	AI	PLICATION NO	•	DATE
PI	WO	8804068 W: US			A1	-	19880602	WC	1987-JP916		19871126
		RW: AT,	BE,	CH,	DE,	FR	, GB, IT,	LU, N	IL, SE		
	JP	63133143			A		19880604	JE	1986-281443		19861126
	JP	01090437			A		19890406	JE	1987-248564		19871001
	JP	01102546			A		19890420	JE	1987-261129		19871016
	EP	291537			A1		19881123	EF	1987-907818		19871126
	EP	291537			B1		19930908				
		R: DE,	FR,	GB,	IT,	NL					
PRAI	JP	1986-281	443		A		19861126				
	JP	1987-248	564		A		19871001				
	JP	1987-261	129		A		19871016				

CLASS PATENT NO. (CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 8804068	ICM	
	ICS	
;	IPCI	G03C0001-00 [ICM,4]; G03C0001-72 [ICS,4]; G03C0005-08 [ICS,4]; G03F0003-10 [ICS,4]; B44C0001-17 [ICS,4]
	IPCR	G03F0003-10 [I,C*]; G03F0003-10 [I,A]
I	ECLA	G03F003/10
JP 63133143	IPCI	G03C0001-00 [ICM,4]; G03C0001-72 [ICS,4]; G03C0005-08 [ICS,4]
	IPCR	G03F0007-20 [I,C*]; G03F0007-20 [I,A]; G03C0001-72
		[I,C*]; G03C0001-72 [I,A]; G03F0003-10 [I,C*];
		G03F0003-10 [I,A]; G03F0007-09 [I,C*]; G03F0007-09
JP 01090437	TPCT	G03C0001-00 [ICM, 4]; G03C0001-00 [ICS, 4]
	IPCR	
		[I,C*]; G03F0003-10 [I,A]; G03F0007-09 [I,C*];
		G03F0007-09 [I,A]
JP 01102546	IPCI	
		[ICS, 4]
	IPCR	G03C0001-00 [I,C*]; G03C0001-00 [I,A]; G03F0003-10
		[I,C*]; G03F0003-10 [I,A]; G03F0007-09 [I,C*];
		G03F0007-09 [I,A]
EP 291537	IPCI	G03C0001-00 [ICM, 4]; G03C0001-72 [ICS, 4]; G03C0005-08
		[ICS, 4]; G03F0003-10 [ICS, 4]; B44C0001-17 [ICS, 4]
	IPCR	G03F0003-10 [I,C*]; G03F0003-10 [I,A]

AB The title materials providing high-quality transfer color images comprise a transparent support, a heat-fusible layer containing alicyclic saturated

hydrocarbyl group-containing resin, and photosensitive composition-containing

color recording layer in that order, wherein the recording layer contains polymers of repeating unit -C(R1)(R2)(C(R3)(CO)(R4))ATO(B1)-(R1, R2 = H, alkyl, carboxy; R3 = H, halogen, alkyl; R4 = H, alkyl, Ph, aralkyl; X = divalent organic group linking N and a C atom in aromatic ring; n = 0.15

Y =

(un)substituted phenylene, naphthylene]. A biaxially stretched PET film was coated 7 µm thick (dry) with a fusible layer comprising Arkon P=00 60, Arkon P=100 15, Tufprene A 25, and toluene 75 parts, dried at 60° for 5 min, coated 1.5 µm thick (dry) with a color recording layer from a 50% solids 8.85:2.65:33.1 (monomer ratio in g) N-(4-hydroxyphenyl)methacrylamide-acrylonitrile-Me acrylate copolymer (I) solution 66.2, 2,3,4-tris(1-0xo-2-diazo-1,2-dihydro-4-aphthylsulfonyloxy)benzophenone photosensitizer 8.4, cyanine blue 4927 46, and methyl Cellosolve 273 parts, dried at 60° for 5 min, exposed from the film side to a 1 kW metal halide light source, developed in aqueous Na2CO3 (pH 9) at 25°, and the image formed was heat transferred to paper at 110°/5 kg/cm2 at 70 cm/min to give a print-quality image, while a control using m-cresol novolak in place of I was not developable by the alkali and showed poor storability at

ST petroleum resin alicyclic photothermal transfer; acrylic polymer photothermal transfer; petroleum resin fusible photothermal transfer

Photothermographic copving

ICM

ICS

G03C001-72

G03F007-08

```
(photocurable acrylic polymers and fusible petroleum presence
        in)
    Petroleum resins
     RL: USES (Uses)
        (alicyclic, hydrogenated, fusible layers containing, in
       photothermal transfer)
    Rubber, butadiene-styrene, uses and miscellaneous
     RL: USES (Uses)
        (block, fusible layers containing, in photothermal transfer
        imaging material, Tufprene A)
тт
    Petroleum resins
     RL: USES (Uses)
        (hydrogenated, fusible layers containing, in photothermal
       transfer imaging)
     110586-14-6 115324-80-6 122024-02-6
    RL: USES (Uses)
        (photocurable, in color photothermal transfers)
     106107-54-4
    RL: USES (Uses)
        (rubber, block, fusible layers containing, in photothermal
       transfer imaging material, Tufprene A)
L12 ANSWER 43 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
    1989:240258 CAPLUS
DN
    110:240258
OREF 110:39695a,39698a
   Entered STN: 25 Jun 1989
TI Quinonediazide-containing photosensitive composition for
    positive-working presensitized lithographic plate
IN Yamamoto, Takeshi; Goto, Sei; Nakai, Hideyuki; Tomiyasu, Hiroshi;
    Kobayashi, Yoshiko
PA Konica Co., Japan; Mitsubishi Kasei Corp.
SO Jpn. Kokai Tokkyo Koho, 13 pp.
    CODEN: JKXXAF
DT
   Patent
LA
   Japanese
    ICM G03C001-72
TC
    ICS G03F007-08
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN CNT 1
                  KIND DATE APPLICATION NO.
    PATENT NO.
                                                              DATE
                        ----
PI JP 63311247
PRAI JP 1987-147327
                        A
                             19881220 JP 1987-147327
                                                                19870612
                               19870612
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
```

[I,C*]; 603F0007-022 [I,A] AB The composition comprises quinonediazide compound, a compound generating radical by

IPCI G03C0001-72 [ICM,4]; G03F0007-08 [ICS,4]
IPCR G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-022

JP 63311247

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activating beam, and vinylic copolymer. N-(4-Hydroxyphenyl)acrylamide,
    prepared from methacrylic chloride and p-hydroxyaniline, was treated with
    acrylonitrile, Et acrylate, and Me methacrylate to give a binder. Al
    plate was coated with a composition containing acetone-pyrogallol
copolymer
    naphthoguinone-(1,2)-diazide-(2)-5-sulfonate, the binder,
    2-trichloromethyl-5-(p-butoxystyryl)-1,3,4-oxadiazol, Victoria Pure Blue
    BOH, and p-tert-octylphenol-formaldehyde copolymer naphthoquinone-(1,2)-
    diazide-(2)-5-sulfonate and UV.-irradiated to give a lithog. plate
showing
    excellent overdevelopability, underdevelopability, and chemical
resistance to
    plate-cleaners.
ST
    lithog plate quinonediazide photosensitive layer
ΙT
   Lithographic plates
       (presensitized, pos.-type, containing quinonediazides)
    123-30-8, p-Hydroxyaniline
    RL: USES (Uses)
       (methacrylation of, acrylamide derivative from)
    119553-98-9P
    RL: PREP (Preparation)
       (photosensitive layer using, binder, preparation of, for pos.-type
       lithog. plate)
    68584-99-6 84135-66-0
    RL: USES (Uses)
       (photosensitive layer using, for pos.-type lithog. plate,
       preparation of)
    72015-26-0
    RL: USES (Uses)
       (radical source, photosensitive laver using, for pos.-type
       lithog. plate)
    920-46-7, Methacrylic chloride
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (reaction of, with hydroxyaniline, acrylamide derivative from)
L12 ANSWER 44 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
   1989:202929 CAPLUS
AN
   110:202929
OREF 110:33524h,33525a
ED
   Entered STN: 26 May 1989
TΙ
    Photosensitive compositions with good chemical resistance and
    ink adhesion
TN
   Yamamoto, Takeshi; Goto, Sei; Tomivasu, Hiroshi; Kobayashi, Yoshiko
PA
   Konica Co., Japan; Mitsubishi Kasei Corp.
   Jpn. Kokai Tokkvo Koho, 13 pp.
SO
    CODEN: JKXXAF
DT
   Patent
LA
    Japanese
IC
    ICM G03C001-72
     ICS G03F007-08
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN.CNT 1
    PATENT NO.
                     KIND DATE APPLICATION NO.
                                                                 DATE
```

PI JP 63183441 19880728 JP 1987-15851 19870126 A PRAI JP 1987-15851 19870126 CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES ICM G03C001-72 JP 63183441 ICS G03F007-08 IPCI G03C0001-72 [ICM, 4]; G03F0007-08 [ICS, 4] IPCR G03C0001-72 [I,C*]; G03C0001-72 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A] AB The title compns., suitable for pos.-type lithog. plates, comprise a polymer of repeating unit -CR1R2CR3(CONR4XnYOH) - [R1, R2 = H, halogen, alkyl, aryl, carboxy or salt; R3 = H, halogen, alkyl, aryl; R4 = H, alkyl, aryl, aralkyl; Y = (un)substituted aromatic group; X = divalent organic

aryl, aralkyl; Y = (un)substituted aromatic group; X = divalent organigroup; n

= 0-5] and substituted phenol R5R6R7C6H2OH (R5, R6 = H, alkyl, halogen;

C22 alkyl, cycloalkyl)-aldehyde condensate and/or its ester with o-naphthoquinonediazide sulfonic acid. A typical composition, providing printing plates with good resistance to cleaners and oils and good printability, comprised m- and p-cresol-HCIM novolak onaphthoquinonediazide-5-sulfonate (weight-average mol. weight 1700) 3.6, 106.4:32:7.2:73.2 (feed weight ratio) N-(4-hydroxyphenyl)acrylamideacrylonitrile-Et acrylate-Me methacrylate copolymer binder 4.8, p-tert-butylphenol-BzH condensate o-naphthoquinonediazide-5-sulfonate 0.168, Victoria Pure Blue BOH 0.084, and 2-trichloromethyl-5-[B-C2benzofuryl)vinyl]-1,3,4-oxadiazole 0.126 g in 67 mL Et Cellosolve and 33 mL methyl Cellosolve.

ST photosensitive acrylic lithog plate; phenolic resin lithog plate; naphthoquinonediazidesulfonate phenolic resin lithog plate; chem resistant lithog plate; ink adhesion lithog plate

IT Phenolic resins, uses and miscellaneous RL: USES (Uses)

(acrylic lithog. plates containing, with good chemical resistance and ink

adhesion)

IT Chemically resistant materials

(acrylic lithog. plates, containing phenolic resins and phenolic resin naphthoquinonediazidesulfonates)

IT Lithographic plates

(photosensitive pos. acrylic polymers, containing phenolic resins and phenolic resin naphthoquinonediazidesulfonates, with good chemical resistance and ink adhesion.

IT 25085-50-1, p-tert-Butylphenol-formaldehyde copolymer 84135-66-0 103219-97-2 103735-35-9

RL: USES (Uses)

(acrylic lithog. plates containing, with good chemical resistance and ink

adhesion)

IT 119553-98-9

RL: USES (Uses)

(lithog. plates, photosensitive, containing phenolic resins and phenolic resin naphthoquinonediazidesulfonates, with good chemical resistance and ink adhesion)

- L12 ANSWER 45 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1989:125485 CAPLUS
- DN 110:125485
- OREF 110:20537a,20540a
- Entered STN: 03 Apr 1989
- Photosensitive composition with improved chemical resistance and ink acceptability
- IN Yamamoto, Takeshi; Goto, Sei; Tomiyasu, Hiroshi; Kobayashi, Yoshiko
- PA Konica Co., Japan; Mitsubishi Kasei Corp.
- SO Jpn. Kokai Tokkyo Koho, 12 pp.
- CODEN: JKXXAF DT
- Patent
- LA Japanese
- IC ICM G03C001-72
 - ICS C08L061-08
- ICA C08F008-34; C08F020-54; C08L033-24; G03F007-08
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

		KIND	DATE	APPLICATION NO.	
PI JP 63198046 PRAI JP 1987-31213 CLASS			19880816 19870213	JP 1987-31213	
PATENT NO.	CLASS	PATENT	FAMILY CLAS	SIFICATION CODES	
JP 63198046	ICM ICS ICA IPCI	C08F000 G03C000 [ICS, 4 [ICA, 4 [ICA, 4	1-08 3-34; C08F02 01-72 [ICM, 4, C*]; C08F00 ,C*]; C08F00 ,C*]; C08L00 ,C*]; G03F00	0-54; C08L033-24; G]; C08L0061-08 [ICS 08-34 [ICA, 4]; C08F 0-54 [ICA, 4]; C08F 33-24 [ICA, 4]; C08L 07-08 [ICA, 4] ; G03C0001-72 [I.A]	,4]; C08L0061-00 0008-00 0020-00 0033-00
	IPCR	[I,C*] C08F00: [I,A]; C08L00	; C08F0008-3 20-00 [I,A]; C08L0033-00 51-00 [I,C*]	; G03C0001-/2 [1,A] 4 [1,A]; C08F0020-0 C08F0020-52 [1,A]; [1,C*]; C08L0033-2 ; C08L0061-04 [1,A] 3 [1,C*]; G03F0007-	0 [I,C*]; C08F0020-54 4 [I,A]; ; C08L0061-08

GI

$$\begin{bmatrix} R^1 & R^3 & & & & OH \\ C & C & & & & & & \\ R^2 & CON^-(X)_{\overline{n}} & Y - OSO_2 & & & & & \\ R^4 & & & & & & & \\ R^4 & & & & & & & \\ \end{bmatrix} \quad \begin{bmatrix} N_2 & & & & & \\ R_5 & & & & \\ & & & & & \\ \end{bmatrix} \quad \begin{bmatrix} R_5 & & & & \\ & & & & \\ & & & & \\ \end{bmatrix}$$

AB The title composition comprises: I [R1, R2 = H, halo, alkyl, aryl, carboxyl or

Page 74

```
its salt; R3 = H, halo, alkyl, aryl; R4 = H, alkyl, aryl, aralkyl; X =
     divalent organic group; n = 0-5; Y = (substituted) divalent aromatic
group]; and
    a resin prepared by condensation of an aldehyde derivative with II [R5,
R5 = H,
    alkvl, halo; R7 = C≥2 alkvl or cycloalkvll and/or its
    o-naphthoguinonediazido sulfonic acid ester. This composition is useful
    pos.-working presensitized lithog. plates.
ST
    alkali sol resin photosensitive compn; novolak sensitizer
    photosensitive compn lithog; presensitized lithog plate
    photosensitive compn
    Photoimaging compositions and processes
        (containing sensitize and alkali-soluble resin for presensitized
lithog.
       plate)
     Lithographic plates
        (presensitized, pos.-working, photosensitize composition containing
        sensitizer and alkali-soluble resin for)
     57167-08-5DP, Poly(p-hydroxymethacrylanilide), reaction product with
     o-naphthoquinonediazido-5-sulfonyl chloride
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and use of, in preparation of pos.-working lithog.
        photosensitive composition)
     3770-97-6DP, reaction product with poly(p-hydroxymethacrylanilide)
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation and use of, pos.-working lithog. photosensitive
        composition from)
    35464-74-5P, m-Cresol-p-cresol-formaldehyde-phenol copolymer
     119553-98-9P
     RL: PREP (Preparation)
        (preparation of, as alkali-soluble resin)
     26678-93-3DP, Formaldehyde-p-tert-octylphenol copolymer, reaction product
     with o-naphthoguinonediazido-5-sulfonyl chloride
     RL: PREP (Preparation)
        (preparation of, as sensitizer)
     19243-95-9
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, poly(p-hydroxymethacylanilide) from)
     123-30-8, p-Hydroxy aniline
                                  920-46-7, Methacrylic acid chloride
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, p-hydroxymethacrylanilide from)
L12 ANSWER 46 OF 46 CAPLUS COPYRIGHT 2008 ACS on STN
    1976:600573 CAPLUS
AN
DN
    85:200573
OREF 85:31935a,31938a
    Entered STN: 12 May 1984
ED
    Presensitized lithographic plates
   Kawada, Hiroo; Yumiki, Keiichi; Seino, Minoru
IN
PA
    Konishiroku Photo Industry Co., Ltd., Japan
SO
    Jpn. Kokai Tokkvo Koho, 9 pp.
    CODEN: JKXXAF
    Patent
T.A
    Japanese
```

TC G03F007-08

GT

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 1						
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
PI JP 51077405	A	19760705	JP 1975-2554	19741226		
PRAI JP 1975-2554	A	19741226				
CLASS						
PATENT NO. CLA	ASS PATENT	FAMILY CLAS	SSIFICATION CODES			
JP 51077405 IC	G03F00	7-08				
IPO	CI G03F00	07-08; B41C	0001-10			

AB Presensitized lithog. plates are obtained by depositing on a wet-honed Al plate a layer of a photosensitive composition containing a polymer having the structural unit I [R,Rl = H, alkyl, CO2H; R2 = H, halo, alkyl; R3 = H.

alkyl, Ph, aralkyl; \mathbf{Z} = a divalent organic moiety linking the N atom to the C

atom of an aromatic ring; n=0, 1; and Q=a phenylene group or naphthylene

group]. Thus, an Al 1100 plate (0.24 mm) was degreased, rinsed, then placed on a rotary drum and rotated at 12 m/min. A mixture of an alumina polishing agent (250 mesh) 20 and water 80 parts (volume) was then sprayed

on with a centrifugal sprayer. After rinsing, the spraying was continued with a 25:75 volume part mixture of H2O and alumina (2000 mesh). After rinsing, the back surface was sprayed with a 10:90 glass beads (100 mesh)-H2O mixture, rinsed and dried. The top surface was then coated

II [number average mol. weight = 32,000, m/n = 70/30] 10 g and Et cellulose 20 mg

15 S 53854-70-9/CRN

67 S L8 OR L10 46 S L11 AND PHOTO?

FILE 'CAPLUS' ENTERED AT 15:37:04 ON 09 SEP 2008

dissolved in Me cellusolve 200 ml and dried. The plate was exposed for 1 min through a pos. original with a 3-kW Hg lamp then rubbed with a sponge after dipping in a 3% aqueous Na metasilicate solution for 1 min. A pos. relief image was obtained with good half-tone reproducibility. When used in an offset printing press, the plate showed good moisture retention, good printing characteristics, good chemical resistance, and excellent wear resistance. ST acrylic photopolymer lithog plate; graining aluminum lithog plate тт Acrylic polymers RL: USES (Uses) (photosensitive compns. containing, for lithog. plates) Lithographic plates (presensitized, photosensitive compns. containing acrylic photopolymers for) IT Glass RL: USES (Uses) (spheres, aluminum lithographic plate graining by spraying with dispersions of) 1344-28-1, uses and miscellaneous RL: USES (Uses) (aluminum lithographic plate graining by spraying with dispersions of) 7429-90-5, uses and miscellaneous RL: USES (Uses) (lithographic plates supports from, graining of, by spraying with alumina dispersion) 61163-35-7 RL: USES (Uses) (photosensitive compns. containing, for lithographic plates) => d his (FILE 'HOME' ENTERED AT 15:27:54 ON 09 SEP 2008) FILE 'REGISTRY' ENTERED AT 15:28:04 ON 09 SEP 2008 L1 1742 S C9H9NO2 L2 1271 S C9H9NO2/MF T. 3 4 S L2 AND ACRYLAMIDE FILE 'REGISTRY' ENTERED AT 15:34:11 ON 09 SEP 2008 1 S 53854-70-9/RN 1.4 SET NOTICE 1 DISPLAY SET NOTICE LOGIN DISPLAY L5 1 S 194091-51-5 0 S 194091-51-5/CRN L6 1 S 34443-04-4 L7 53 S 34443-04-4/CRN L8 1 S 53854-70-9 L9

=> log y

-36.80

-36.80

STN INTERNATIONAL LOGOFF AT 15:38:11 ON 09 SEP 2008

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CA SUBSCRIBER PRICE

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TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 17 JUL 28 CA/CAplus patent coverage enhanced

NEWS 18 JUL 28 EPFULL enhanced with additional legal status

information from the epoline Register
NEWS 19 JUL 28 IFICDB, IFIPAT, and IFIUDB reloaded with enhancements

NEWS 20 JUL 28 STN Viewer performance improved

NEWS 21 AUG 01 INPADOCDB and INPAFAMDB coverage enhanced

NEWS 22 AUG 13 CA/CAplus enhanced with printed Chemical Abstracts

page images from 1967-1998

NEWS 23 AUG 15 CAOLD to be discontinued on December 31, 2008

NEWS 24 AUG 15 CAplus currency for Korean patents enhanced

NEWS 25 AUG 25 CA/CAplus, CASREACT, and IFI and USPAT databases

enhanced for more flexible patent number searching NEWS 26 AUG 27 CAS definition of basic patents expanded to ensure

comprehensive access to substance and sequence information

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 17:01:43 ON 09 SEP 2008

=> FILE REG

COST IN U.S. DOLLARS SINCE

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1 DICTIONARY FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> S C11H13NO2/MF

L1 4064 C11H13NO2/MF

=> S L1 AND ACRYLAMIDE 18439 ACRYLAMIDE

L2 5 L1 AND ACRYLAMIDE

=> D 1-5

L2 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN

RN 70875-53-5 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenamide, N-[(4-methoxyphenyl)methyl]- (CA INDEX NAME)
OTHER NAMES:

CN N-(4-Methoxybenzyl)acrylamide

MF C11 H13 N O2

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL (*File contains numerically searchable property data)

$$CH_2-NH-C-CH=CH_2$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN

RN 15271-60-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenamide, N-(3-methoxyphenyl)-2-methyl- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN m-Methacrylanisidide (6CI, 8CI)

OTHER NAMES:

CN N-(m-Methoxyphenyl)methacrylamide

MF C11 H13 N O2

CT COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, TOXCENTER (*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 11 REFERENCES IN FILE CA (1907 TO DATE)
- 11 REFERENCES IN FILE CAPLUS (1907 TO DATE) 4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
- L2 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 13910-91-3 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN 2-Propenamide, N-(2-methoxyphenyl)-2-methyl- (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN o-Methacrylanisidide (6CI, 8CI) OTHER NAMES:
- CN N-(o-Methoxyphenyl)methacrylamide
- MF C11 H13 N O2
- CI COM
- LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT
 (*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 11 REFERENCES IN FILE CA (1907 TO DATE)
- 11 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- 4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
- L2 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 13890-05-6 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN 2-Propenamide, N-[(phenylmethoxy)methyl]- (CA INDEX NAME)
 OTHER CA INDEX NAMES:
- CN Acrylamide, N-[(benzyloxy)methyl]- (8CI)
- MF C11 H13 N O2
- CT
- LC STN Files: CA, CAPLUS, USPATOLD

0 || Ph-CH2-O-CH2-NH-C-CH--CH2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L2 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 7274-71-7 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN 2-Propenamide, N-(4-methoxyphenyl)-2-methyl- (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN p-Methacrylanisidide (6CI, 7CI, 8CI)
- OTHER NAMES:
- CN 4-Methoxyphenylmethacrylamide
- CN N-(4-Methoxyphenyl)-2-methyl-2-propenamide
- CN N-(p-Methoxyphenyl)methacrylamide
- MF C11 H13 N O2
- CI COM
- LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, USPATFULL

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

28 REFERENCES IN FILE CA (1907 TO DATE)

28 REFERENCES IN FILE CAPLUS (1907 TO DATE)

6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> S hydroxybenzylacrylamide

0 HYDROXYBENZYLACRYLAMIDE

=> S hydroxybenzyl and acrylamide 5831 HYDROXYBENZYL

18439 ACRYLAMIDE

4 26 HYDROXYBENZYL AND ACRYLAMIDE

=> d 26

Page 82

- L4 ANSWER 26 OF 26 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 13394-52-0 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN Acrylamide, N-[3-(2H-benzotriazol-2-y1)-α-chloro-2hydroxybenzyl]- (8CI) (CA INDEX NAME)
- MF C16 H13 C1 N4 O2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> s 14 not chloro

6444251 CHLORO

L5 24 L4 NOT CHLORO

=> d 24

- L5 ANSWER 24 OF 24 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 13560-54-8 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN 2-Propenamide, N-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]-2-methyl- (CA INDEX NAME)
 OTHER CA INDEX NAME)
- CN Acrylamide, N-(3,5-di-tert-butyl-4-hydroxybenzyl)-2-methyl- (7CI,
- 8CI) MF C19 H29 N O2
- CI COM
- LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, IFICDB, IFIPAT, IFIUDB, USPATOLD
 - (*File contains numerically searchable property data)

 $\begin{array}{c} \text{t-Bu} \\ \text{H2C o} \\ \text{Me-C-C-NH-CH2} \end{array}$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE) 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s 15 not tert

135326 TERT 15 L5 NOT TERT

=> d 15

1.6 ANSWER 15 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN

RN 13560-55-9 REGISTRY

ED Entered STN: 16 Nov 1984

2-Propenamide, N-[(3,5-diethyl-4-hydroxyphenyl)methyl]- (CA INDEX NAME) OTHER CA INDEX NAMES:

Acrylamide, N-(3,5-diethyl-4-hydroxybenzyl)- (7CI, 8CI)

OTHER NAMES:

CN 4-Acrylovlaminomethyl-2,6-diethylphenol

MF C14 H19 N O2

BEILSTEIN*, CA, CAOLD, CAPLUS, IFICDB, IFIPAT, IFIUDB, LC STN Files: USPATFULL

(*File contains numerically searchable property data)

$$\begin{array}{c} \text{Et} \\ \text{OH} \\ \text{H}_2\text{C} = \text{CH} - \text{C} - \text{NH} - \text{CH}_2 \end{array} \quad \text{Et}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s 13560-55-9/crn

0 13560-55-9/CRN

=> file caplus; s 16 COST IN U.S. DOLLARS

SINCE FILE TOTAL SESSION ENTRY 54.35

54.56

FULL ESTIMATED COST

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FILE COVERS 1907 - 9 Sep 2008 VOL 149 ISS 11 FILE LAST UPDATED: 8 Sep 2008 (20080908/ED)

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```
L8
            13 L6
```

=> s 18 and photo?

1604210 PHOTO?

4 L8 AND PHOTO?

=> d all 1-4

- T.9 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
- 2007:356592 CAPLUS AN
- 146:368744 DN
- ED Entered STN: 30 Mar 2007
- TI Negative-working photosensitive resin composition for forming
- two layer-structure film for forming bump contacts
- IN Yokoyama, Kenichi; Sakai, Yoko; Hasegawa, Satomi; Ota, Suguru; Iwanaga, Shinichiro
- PA JSR Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 36pp.
 - CODEN: JKXXAF
- DT Pat.ent. LA
- Japanese
- 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 76

FAN.CNT 1

| | PATENT NO. | | KIND | DATE | APPLICATION NO. | DATE |
|------|------------|-------|--------|-------------|------------------|----------|
| | | | | | | |
| PI | JP 2007079 | 9550 | A | 20070329 | JP 2006-182282 | 20060630 |
| PRAI | JP 2005-23 | 38795 | A | 20050819 | | |
| CLAS | S | | | | | |
| PAT | ENT NO. | CLASS | PATENT | FAMILY CLAS | SIFICATION CODES | |

JP 2007079550 IPCI G03F0007-11 [I,A]; G03F0007-004 [I,A]; G03F0007-40 [I,A]; H01L0021-027 [I,A]; H05K0003-34 [I,A];

```
H01L0021-60 [I,A]; H01L0021-02 [I,C*]
      G03F0007-11 [I,C]; G03F0007-11 [I,A]; G03F0007-004
IPCR
       [I,C]; G03F0007-004 [I,A]; G03F0007-40 [I,C];
      G03F0007-40 [I,A]; H01L0021-02 [I,C]; H01L0021-027
       [I,A]; H01L0021-60 [I,A]; H05K0003-34 [I,C];
       H05K0003-34 [I,A]
FTERM 2H025/AA03; 2H025/AA04; 2H025/AA16; 2H025/AB11;
       2H025/AB15; 2H025/AB17; 2H025/AC01; 2H025/AD01;
       2H025/BC13; 2H025/BC42; 2H025/CA00; 2H025/CB43;
       2H025/CB45; 2H025/CB60; 2H025/CC03; 2H025/CC05;
       2H025/DA35; 2H025/DA40; 2H025/FA17; 2H025/FA43;
       2H096/AA26; 2H096/AA27; 2H096/BA05; 2H096/CA05;
       2H096/EA02; 2H096/GA08; 2H096/HA27; 5E319/AA03;
       5E319/AB05; 5E319/BB05; 5E319/CC33; 5E319/CD04;
      5E319/CD26; 5E319/GG15
```

GI

AB Title composition contains a polymer having repeating unit I(R1 = -(CH2)n-; n =

integer 1-3; R2-4 = H, C1-4 alkyll, an organic solvent, and compound R10-[-(CH2)p-0-lm-[-(CH2)q-0-1)n-R2(p, q = 2,3; m, n = integer ≥ 0 with 3<m=n ≤ 12 ; R1-2 = H, organic group). The composition provides good characteristics such as good solder pattern formation and easy removal from a substrate.

ST neg photosensitive resin compn bump contact solder

IT Alcohols, uses

RL: TEM (Technical or engineered material use); USES (Uses) (C12-14-secondary, ethoxylated; neg.-working photosensitive resin composition for forming two layer-structure film for forming

bump

contacts)
IT Bump contacts

(neg.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

T Photoimaging materials

Τ

(photopolymerizable; neg.-working photosensitive resin composition for forming two laver-structure film for forming dump

contacts)

863455-99-6P, N-(4-Hydroxy-3,5-dimethylbenzyl)acrylamide-styrene-2hydroxyethyl acrylate copolymer 926636-49-9P, N-(4-Hydroxy-3,5dimethylbenzyl)acrylamide-styrene-2-hydroxyethyl acrylate-butyl acrylate copolymer

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(neq.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

тт 24991-55-7, Uniox MM 500 865783-27-3, p-Isopropenylphenol-N-(p-Hydroxyphenyl) methacrylamide-methacrylic acid-butyl methacrylate-Tricyclo[5.2.1.02,6]decanyl-8-ol methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses) (neg.-working photosensitive resin composition for forming two

layer-structure film for forming bump contacts) 97-64-3, Ethyl 2-hydroxypropionate 1320-67-8, Propylene glycol monomethyl ether

RL: NUU (Other use, unclassified); USES (Uses) (organic solvent; neg.-working photosensitive resin composition for forming two layer-structure film for forming bump contacts)

ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

L9 AN 2005:962527 CAPLUS

DN 143:258087

ED Entered STN: 02 Sep 2005

ΤI Bilayer laminated film for bump formation and method of bump formation Nishimura, Hiroko; Ohta, Masaru; Inomata, Katsumi; Iwanaga, Shin-Ichiro IN

PA JSR Corporation, Japan

SO PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM G03F007-11

ICS H05K003-34 76-2 (Electric Phenomena)

Section cross-reference(s): 74

| FAN. | CNT 1 | | | | | | | | | | | | | | | | |
|------|---------|-------|-----|-----|-----|-----|------|------|-----|------|-------|------|-----|-----|-----|------|-----|
| | PATENT | NO. | | | KIN | D | DATE | | | APPL | ICAT: | ION | NO. | | D | ATE | |
| | | | | | | - | | | | | | | | | | | |
| PI | WO 2005 | 08106 | 54 | | A1 | | 2005 | 0901 | | WO 2 | 005- | JP25 | 75 | | 2 | 0050 | 218 |
| | W: | ΑE, | AG, | AL, | AM, | AT, | AU, | AZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | NI, |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, |
| | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW |
| | RW | BW, | GH, | GM, | KE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, |
| | | AZ, | BY, | KG, | KZ, | MD, | RU, | ΤJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | IS, | IT, | LT, | LU, | MC, | NL, | PL, | PT, |
| | | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, |
| | | MR, | NE, | SN, | TD, | TG | | | | | | | | | | | |
| | JP 2005 | 26679 | 95 | | A | | 2005 | 0929 | | JP 2 | 005- | 4082 | 7 | | 2 | 0050 | 217 |

| EP 1739487 | | A1 | 20070103 | EP 2005-71 | 0408 | 20050218 | | | | | | |
|--|----------------------------|--|---|--|--|--|--|--|--|--|--|--|
| R: DE,
CN 1922546
US 20070237
PRAI JP 2004-449
WO 2005-JP2 | 1890
129 | A
A1
A
W | 20070228
20071011
20040220
20050218 | CN 2005-80
US 2006-58 | | 20050218
20060728 | | | | | | |
| CLASS
PATENT NO. | CLASS | PATENT | FAMILY CLAS | SIFICATION C | ODES | | | | | | | |
| WO 2005081064 | ICM
ICS
IPCI
IPCR | H05K00
G03F00
G03F00
[I,C*]
H01L00 | G03F007-11
H05K003-34
G03F0007-11 [ICM,7]; H05K0003-34 [ICS,7]
G03F0007-033 [I,C*]; G03F0007-033 [I,A]; G03F0007-11
[I,C*]; G03F0007-11 [I,A]; H01L0022-02 [I,C*];
H01L0021-48 [I,A]; H01L0021-60 [I,A]; B05K0003-34 | | | | | | | | | |
| | ECLA | H01L02 | [I,C*]; H05K0003-34 [I,A]
H01L021/60B2; G03F007/033; G03F007/11; H01L021/48C4C; | | | | | | | | | |
| JP 2005266795
G03F0007-033 | IPCI | | 05K003/34F6B
903F0007-11 [ICM,7]; G03F0007-004 [ICS,7]; | | | | | | | | | |
| G03F0007-033 | IPCR | [ICS,7]; G03F0007-40 [ICS,7]; H01L0021-60 [ICS,7]; H01L0021-02 [ICS,7,C*] G03F0007-004 [I,C*]; G03F0007-004 [I,C*]; G03F0007-033 [I,A]; G03F0007-10 [I,A]; G03F0007-11 [I,A]; G03F0007-11 [I,A]; G03F0007-11 [I,C*]; G03F0007-40 [I,C*]; H01L0021-60 [I,A] | | | | | | | | | | |
| | FTERM | 2H025/
2H025/
2H025/
2H025/
2H025/ | AA03; 2H025/
AB15; 2H025/
BC13; 2H025/
CB17; 2H025/
DA36; 2H025/
AA27; 2H096/ | AA10; 2H025/
AB17; 2H025/
BC42; 2H025/
CB43; 2H025/
DA40; 2H025/ | AA16; 2H025/
AC01; 2H025/
CA00; 2H025/
CB45; 2H025/
FA39; 2H096/ | 'AB11;
'AD01;
'CB13;
'CC03;
'AA26; | | | | | | |
| EP 1739487 | IPCI
IPCR | G03F0007-11 [I,A]; H05K0003-34 [I,A]
G03F0007-11 [I,C]; G03F0007-11 [I,A]; G03F0007-033
[I,C*]; G03F0007-033 [I,A]; H01L0021-02 [I,C*];
H01L0021-48 [I,A]; H01L0021-60 [I,A]; H05K0003-34
[I,C]; H05K0003-34 [I,A] | | | | | | | | | | |
| | ECLA | H01L02 | 1/60B2; G03F
3/34F6B | | F007/11; H01 | L021/48C4C; | | | | | | |
| CN 1922546 | IPCI
IPCR | G03F00
[I,C*]
H01L00 | 07-11 [I,A];
07-11 [I,C];
; G03F0007-0
21-48 [I,A];
; H05K0003-3 | G03F0007-11
33 [I,A]; H0
H01L0021-60 | [I,A]; G03E
1L0021-02 [3 | ,C*]; | | | | | | |
| | ECLA | H01L02 | 1/60B2; G03F
3/34F6B | | F007/11; H01 | L021/48C4C; | | | | | | |
| US 20070237890 | IPCI | [I,A]; | 05-12 [I,A];
C08L0061-00 | [I,A] | | | | | | | | |
| | NCL | 427/09
525/47 | 8.400; 257/E
1.000 | 21.508; 428/ | 500.000; 522 | 2/109.000; | | | | | | |

AB A neg. radiation-sensitive bilayer laminated film for bump formation is described, characterized in that a composition comprising a polymer with specified structural unit and organic solvent is used as an underlayer of the

bilayer laminated film for bump formation. A method of bump formation

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using the laminated film is also described. Thus, there is provided a
     neg, radiation-sensitive bilayer laminated film for bump formation that
     excels in solder paste printability and pattern configuration and that
can
     be easily detached from substrates, and further provided a method of bump
    production therewith.
    bilayer polymer photoresist film bump solder paste
ΙT
    Bump contacts
    Multilayers
    Negative photoresists
        (bilayer photoresist laminated film for bump formation using
        solder paste)
TT
     Soldering
        (paste; bilayer photoresist laminated film for bump formation
        using solder paste)
IT
     3524-68-3, Aronix M-305
                              62886-89-9, Aronix M 8060
                                                         863455-98-5
     863455-99-6, 2-Hydroxyethyl acrylate-N-(3,5-dimethyl-4-
     hydroxybenzyl)acrylamide-styrene copolymer 863456-00-2,
     N-(P-Hydroxyphenol)methacrylamide-iso-propenylphenol-methacrylic
     acid-8-tricyclo[5.2.1.02.6]decanvl methacrylate copolymer 863456-01-3,
     Butyl acrylate-isopropenylphenol-methacrylic acid-isobornyl
     acrylate-8-tricyclo[5.2.1.02.6]decanyl methacrylate copolymer
     RL: TEM (Technical or engineered material use); USES (Uses)
        (bilayer photoresist laminated film for bump formation using
        solder paste)
RE.CNT 17
             THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
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(2) Arch Specialty Chemicals Inc; JP 2002539282 A 2002
(3) Arch Specialty Chemicals Inc; US 6492092 B1 2002 CAPLUS
(4) Casio Computer Co Ltd; JP 10-107037 A 1998
(5) Fuji Photo Film Co Ltd; JP 07-333836 A 1995 CAPLUS
(6) Fuji Photo Film Co Ltd; JP 200420643 A 2004
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(11) Matsushita Electric Industrial Co Ltd; JP 200156570 A 2001
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(14) Tokyo Ohka Kogyo Co Ltd; US 200387187 A1 2003
(15) Toshiba Corp; JP 09-321049 A 1997 CAPLUS
(16) Toyama Nihon Denki Kabushiki Kaisha; JP 2000208911 A 2000 CAPLUS
(17) Toyama Nihon Denki Kabushiki Kaisha; US 6420255 B1 2000 CAPLUS
L9
    ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
AN
     1993:549504 CAPLUS
DN
OREF 119:26551a,26554a
ED
    Entered STN: 02 Oct 1993
    Photosensitive composition with polymeric binder comprising
    alpha-beta unsaturated carboxylic acid residue
    Roeschert, Horst; Pawlowski, Georg; Przybilla, Klaus Juergen
IN
    Hoechst A.-G., Germany
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Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German IC ICM C07C233-20

ICS C08F020-58; C07F007-18; C07D307-20; C07D309-10; G03F007-004; H01L021-312

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

| Section cro | ss-refe | rence(s |): 35 | | |
|--|----------------------|---|--|---|---|
| PATENT NO. | | KIND | DATE | APPLICATION NO. | DATE |
| PI DE 4126409
EP 528203
EP 528203 | | A1
A1
B1 | 19930211
19930224
19951011
B, IT, LI | DE 1991-4126409
EP 1992-112588 | |
| US 5328973
JP 05255216
PRAI DE 1991-412
CLASS | | A
A | 19940712 | US 1992-922507
JP 1992-234193 | |
| | | | | IFICATION CODES | |
| DE 4126409 | | C07C233
C08F020
G03F007
C07C023
C08F003
C07F000
C07D030 | 3-20
0-58; C07F007
7-004; H01L02
33-20 [ICM,5]
20-58 [ICS,5]
07-18 [ICS,5]
07-20 [ICS,5] | '-18; C07D307-20; C0 | 7D309-10;
5,C*];
5,C*];
5,C*];
5,C*];
5,C*]; |
| H01L0021-02 | | | | 1, | 0,01, |
| | IPCR | [I,C*] | 33-00 [I,C*]; | C07C0233-20 [I,A];
[I,A]; G03F0007-03 | |
| EP 528203 | IPCI | C07C023 | 33-20 [ICM, 5] | ; C07C0233-00 [ICM,
; C08F0020-00 [ICS, | |
| | IPCR | [I,C*] | | C07C0233-20 [I,A];
[I,A]; G03F0007-03 | |
| US 5328973 | ECLA
IPCI | C08F002 | 20-60 [ICM,5]
24-00 [ICS,5] | /58; G03F007/039
; C08F0020-00 [ICM,
; C08F0030-08 [ICS, | |
| | NCL | 526/26
526/26
526/29 | 2.000; 430/27
6.000; 526/27
2.900; 526/29 | 0.100; 430/906.000;
0.000; 526/279.000;
8.000; 526/304.000 | |
| JP 05255216 | ECLA
IPCI
IPCR | C07C023
C07C023
[I,C*] | 33-20 [ICM,5]
33-00 [I,C*];
; C08F0020-58 | /58; G03F007/039
; C07C0233-00 [ICM,
C07C0233-20 [I,A];
[I,A]; G03F0007-03 | C08F0020-00 |
| | | G03F000 | 07-039 [I,A] | | |

GI

AB The compds. I [R1 = acid-splittable group; R2 = alkyl, H, halogen, CN; R3-R6 = aliphatic, aromatic, araliph., halogen, OH, H; R7 = H, alkyl;

R8, R9 = H, alkyl, aryl], the polymers containing ≥10 mol% of I, and photosensitive compns. containing the polymer are claimed. The

composition is useful for resist material for deep-UV lithog.

ST acrylamide polymer photosensitive compn photoresist; lithog deep UV resist acrylamide

IT Resists

(photo-, deep-UV, acrylamide polymers for)

IT Lithography

(photo-, UV, light-sensitive compns. containing acrylamide polymers for)

IT 13560-56-0P 13579-40-3P 104835-82-7P 149450-93-1P

149450-94-2P 149450-95-3P 149450-96-4P 149450-97-5P 149450-98-6P 149450-99-7P 149451-003-9P 149451-01-4P 149451-02-5P 149451-03-6P RE: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, polymer binder for photosensitive composition from)

T 149787-50-8P 149787-51-9P 149787-52-0P 149787-53-1P 149787-54-2P 149787-55-3P 149787-56-4P 149787-57-5P 149787-60-0P 149787-61-1P 149826-03-9P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, in photosensitive composition)

L9 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1990:468392 CAPLUS

DN 113:68392

OREF 113:11389a,11392a

ED Entered STN: 17 Aug 1990

TI Positive-working radiation-sensitive mixture and recording materials therefrom

IN Elsaesser, Andreas; Frass, Hans Werner; Mohr, Dieter

PA Hoechst A .- G., Fed. Rep. Ger.

SO Ger. Offen., 15 pp. CODEN: GWXXBX

DT Patent

LA German

IC G03F007-08; G03F007-10; C09D003-80; C09D007-12; G03F007-16

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

| FAN.CNT 1
PATENT NO. | | KIND | DATE | APPLICATION NO. | DATE |
|---|-----------------------------|---|---|---|---|
| PI DE 3820699
US 5068163
EP 347660
EP 347660
EP 347660
R: CH. | | B1 | 19891221
19911126
19891227
19910605
19950322 | DE 1988-3820699
US 1989-362688
EP 1989-110425 | 19880618
19890607
19890609 |
| BR 8902919
KR 161965
JP 02052349
JP 2559852
PRAI DE 1988-382
CLASS | , , | A
B1
A
B2 | 19900206
19990115
19900221
19961204
19880618 | BR 1989-2919
KR 1989-8362
JP 1989-154797 | 19890616
19890617
19890619 |
| | CLASS | | FAMILY CLASS | IFICATION CODES | |
| DE 3820699 | | | | '-10; C09D003-80; C09D0 | 07-12; |
| | IPCI
IPCR | [ICS];
G03F000
[I,C*];
G03F000
[I,A]; | C09D0007-12
07-022 [I,C*]
G03F0007-00
07-023 [I,A];
G03F0007-039 | G03F0007-10 [ICS]; C09
[ICS]; G03F0007-16 [IC
; G03F0007-022 [I,A];
'4 [I,A]; G03F0007-023
G03F0007-032 [I,C*];
'[I,C*]; G03F0007-039
H01L0021-027 [I,A]; H | S]
G03F0007-004
[I,C*];
G03F0007-032
[I,A]; |
| US 5068163
G03C0001-005 | IPCI | | | ; G03C0001-492 [ICS,5] | ; |
| | IPCR | G03F000
[I,C*];
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[I,A];
H01L002
[I,A] | 07-022 [I,C*]
G03F0007-00
07-023 [I,A];
G03F0007-039
21-02 [I,C*]; | ; G03F0007-022 [I,A];
4 [I,A]; G03F0007-023
G03F0007-032 [I,C*];
[I,C*]; G03F0007-039
H01L0021-027 [I,A]; H | [I,C*];
G03F0007-032
[I,A];
01L0021-30 |
| EP 347660 | NCL
ECLA
IPCI
IPCR | G03F000
G03F000
[I,C*];
G03F000
[I,A]; | 7/004D; G03F0
07-02 [ICM,4]
07-022 [I,C*]
G03F0007-00
07-023 [I,A];
G03F0007-039 | | G03F0007-004
[I,C*];
G03F0007-032
[I,A]; |
| BR 8902919 | ECLA
IPCI
IPCR | [I,A]
G03F000
G03F000
[I,C*];
G03F000
[I,A]; | 7/004D; G03F0
07-10 [ICM,4]
07-022 [I,C*]
G03F0007-00
07-023 [I,A];
G03F0007-039 | 07/023P | G03F0007-004
[I,C*];
G03F0007-032
[I,A]; |

[I,A] G03F0007-023 [ICM, 7] KR 161965 IPCI IPCR G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-032 [I,C*]; G03F0007-032 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H01L0021-30 [I,A]

JP 02052349 IPCI G03F0007-022 [ICM,6]; G03F0007-032 [ICS,6];

G03F0007-039 [ICS,6] TPCR

G03F0007-022 [I,C*]; G03F0007-022 [I,A]; G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-023 [I,C*]; G03F0007-023 [I,A]; G03F0007-032 [I,C*]; G03F0007-032 [I,A]; G03F0007-039 [I,C*]; G03F0007-039 [I,A]; H01L0021-02 [I,C*]; H01L0021-027 [I,A]; H01L0021-30 [I, A]

os CASREACT 113:68392

GI For diagram(s), see printed CA Issue.

AB Pos.-working radiation-sensitive mixts., which are capable of producing photoresists of high heat resistance and lithog, plates with a high printing durability, are composed of essentially a 1,2-quinone diazide or a combination of a compound that forms a strong acid under the effects of actinic radiation and a compound with ≥1 cleavable C-O-C bond, and a binder with repeating units of the structure I (R1 = , halogen, CN, or alkyl; R2, R3, R4 = H, alkyl, or aryl; R5, R6, R7 = H, halogen, alkyl, aryl, or alkoxy; X = the atoms to complete a carbocyclic aromatic ring system; n = 1, 2, or 3). Thus, a typical mixture consisted of

N-(2-hydroxy-1-naphthylmethyl)methacrylamide,

2,3,4-trihydroxybenzophenone

1,2-naphthoquinone-2-diazide-4-sulfonate, and propylene glycol Me either acetate.

pos photosensitive compn binder; photoresist pos binder; lithog plate pos photosensitive compn

Lithographic plates

(pos.-working photosensitive compns. containing acrylamide derivs. polymer binders for fabrication of, with improved printing durability)

Resists

(photo-, pos.-working, containing acrylamide derivative polymer binders, for high-heat resistance)

36451-09-9 84522-08-7

RL: USES (Uses)

(pos.-working photosensitive compns. containing, for lithog. plates)

69432-41-3 69666-56-4 97746-56-0 97802-84-1 RL: USES (Uses)

(pos.-working photosensitive compns. containing, for photoresists)

13579-23-2P 109687-01-6P 13560-56-0P 128067-81-2P RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (preparation and polymerization of)

128067-80-1P 128067-82-3P 128067-83-4P

RL: PREP (Preparation)

(preparation and pos.-working photosensitive compns. containing, for

lithog, plate fabrication)

IT 128093-71-0P 128093-76-5P 128093-77-6P 128093-78-7P RL: PREP (Preparation)

(preparation and pos.-working photosensitive compns. containing, for

lithog. plates)
T 128067-84-5P 128088-12-0P 128093-70-9P 128093-71-0P 128093-72-1P 128093-73-2P 128093-74-3P 128093-75-4P

RL: PREP (Preparation) (preparation and pos.-working photosensitive compns. containing, for lithog, plates and photoresists)

IT 3644-12-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dimethylphenyl)

IT 576-26-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with N-methoxymethylmethacrylamide)

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http://www.cas.org/support/stngen/stndoc/properties.html

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L1
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L2
              5 S L1 AND ACRYLAMIDE
L3
             0 S HYDROXYBENZYLACRYLAMIDE
            26 S HYDROXYBENZYL AND ACRYLAMIDE
L4
L5
            24 S L4 NOT CHLORO
L6
            15 S L5 NOT TERT
             0 S 13560-55-9/CRN
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1.8
            13 S L6
L9
             4 S L8 AND PHOTO?
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L6
    ANSWER 1 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
    937821-21-1 REGISTRY
RN
ED
    Entered STN: 19 Jun 2007
     2-Propenamide, N-(1-methylethyl)-, polymer with 5-(hydroxymethyl)-1,3-
    benzenediol, diblock (CA INDEX NAME)
OTHER NAMES:
    3,5-Dihydroxybenzyl alcohol-N-isopropylacrylamide diblock
CN
    copolymer
    (C7 H8 O3 . C6 H11 N O)x
MF
CI
    PMS
PCT Polyacrylic, Polyother
SR
    CA
LC
    STN Files: CA, CAPLUS
    CM
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     CRN 29654-55-5
     CMF C7 H8 O3
           сн2-он
      OH
    CM
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    CRN 2210-25-5
    CMF C6 H11 N O
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CH CH2
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              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
L6
    ANSWER 2 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
RN
    937738-29-9 REGISTRY
ED
   Entered STN: 18 Jun 2007
    2-Propenamide, N-(1-methylethyl)-, polymer with 5-(hydroxymethyl)-1,3-
    benzenediol, triblock (CA INDEX NAME)
OTHER NAMES:
    3,5-Dihydroxybenzyl alcohol-N-isopropylacrylamide triblock
    copolymer
MF
     (C7 H8 O3 . C6 H11 N O)x
CI
    PMS
PCT Polyacrylic, Polyother
SR
LC
    STN Files: CA, CAPLUS
    CM
         1
    CRN 29654-55-5
    CMF C7 H8 O3
           CH2-OH
      OH
     CM
     CRN 2210-25-5
     CMF C6 H11 N O
i-PrNH-C-CH-CH2
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
    ANSWER 3 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
RN
    863455-99-6 REGISTRY
    Entered STN: 19 Sep 2005
```

CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with ethenylbenzene and N-[(4-hydroxy-3,5-dimethylphenyl)methyl]-2-propenamide (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2-Hydroxyethyl acrylate-N-(3,5-dimethyl-4-hydroxybenzyl)acrylamidestyrene copolymer

CN N-(4-Hydroxy-3,5-dimethylbenzyl)acrylamide-styrene-2-hydroxyethyl acrylate copolymer

DR 930283-80-0

MF (C12 H15 N O2 . C8 H8 . C5 H8 O3)x

CI PMS PCT Polyacrylic, Polystyrene

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 13579-23-2 CMF C12 H15 N O2

$$\begin{array}{c} \text{Me} \\ \text{CH}_2 - \text{NH} - \text{C} - \text{CH} = \text{CH}_2 \\ \text{HO} \\ \text{Me} \end{array}$$

CM

CRN 818-61-1 CMF C5 H8 O3

CM 3

CRN 100-42-5

CMF C8 H8

H2C=CH-Ph

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
ANSWER 4 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
1.6
RN
    852923-27-4 REGISTRY
ED
    Entered STN: 24 Jun 2005
CN
     2-Propenamide, N-[(3,4-dihydroxyphenyl)methyl]- (CA INDEX NAME)
OTHER NAMES:
CN
    N-(3,4-Dihydroxybenzyl)acrylamide
MF
    C10 H11 N O3
SR
    CA
LC
    STN Files: CA, CAPLUS, CASREACT
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 5 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN

RN 849686-90-4 REGISTRY

ED Entered STN: 03 May 2005

CN 2-Propenamide, N,N-dimethyl-, polymer with N-[(4-hydroxy-3,5-dimethylphenyl)methyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME) OTHER NAMES:

CN N,N-Dimethylacrylamide-N-(3,5-dimethyl-4-hydroxybenzyl)methacrylamide copolymer

MF (C13 H17 N O2 . C5 H9 N O)x

CI PMS PCT Polyacrylic

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 104835-82-7 CMF C13 H17 N 02

N-(2-Hydroxybenzyl)-3-(thiophen-3-yl)-N-[2-(thiophen-2-

STN Files: CA, CAPLUS, TOXCENTER

yl)ethyl]acrylamide

C20 H19 N O2 S2

OTHER NAMES:

CN

MF

SR CA

LC

^{**}PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L6 ANSWER 7 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 675868-42-5 REGISTRY
- ED Entered STN: 16 Apr 2004
- CN 2-Propenamide, N-(diphenylmethyl)-3-[4-[[(3-hydroxyphenyl)methyl][(2,4,6trimethylphenyl)sulfonyl]amino]phenyl]- (CA INDEX NAME)
- OTHER NAMES: CN N-Benzhydryl-3-[4-[(3-hydroxybenzyl)(2,4,6-
- trimethylbenzenesulfonyl)amino]phenyl]acrylamide
- MF C38 H36 N2 O4 S
- SR CA
- LC STN Files: CA, CAPLUS, TOXCENTER, USPATZ, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L6 ANSWER 8 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 675868-41-4 REGISTRY
- ED Entered STN: 16 Apr 2004
- CN 2-Propenamide, 3-[4-[[(3-hydroxyphenyl)methyl][(2,4,6-
- trimethylphenyl)sulfonyl]amino]phenyl]-N-[3-(1H-imidazol-1-yl)propyl](CA INDEX NAME)
- OTHER NAMES:
- CN 3-[4-[(3-Hydroxybenzyl)(2,4,6-trimethylbenzenesulfonyl)amino]phenyl]-
- N-[3-(imidazol-1-vl)propvl]acrvlamide
- MF C31 H34 N4 O4 S
- SR CA
- LC STN Files: CA, CAPLUS, TOXCENTER, USPATZ, USPATFULL

PAGE 1-A

PAGE 2-A

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- ANSWER 9 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN 675868-40-3 REGISTRY Entered STN: 16 Apr 2004 2-Propenamide, 3-[4-[((3-hydroxyphenyl)methyl][(2,4,6-L6
- RN
- ED
- trimethylphenyl)sulfonyl]amino]phenyl]-N-[2-(4-morpholinyl)ethyl]- (CA INDEX NAME)
- OTHER NAMES:

- $\texttt{CN} \qquad 3 \texttt{[4-[(3-Hydroxybenzyl)(2,4,6-trimethylbenzenesulfonyl)amino]phenyl]} \\$
- N-[2-(morpholin-4-yl)ethyl]acrylamide
- MF C31 H37 N3 O5 S
- SR CA LC STN Files: CA, CAPLUS, TOXCENTER, USPATZ, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L6 ANSWER 10 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 675868-39-0 REGISTRY
- ED Entered STN: 16 Apr 2004
- CN 2-Propenamide, N-([1,1'-biphenyl]-3-ylmethyl)-3-[4-[[(3hydroxyphenyl)methyl][(2,4,6-trimethylphenyl)sulfonyl]amino]phenyl]- (CA INDEX NAME)
- OTHER NAMES:
 CN N-[(Biphenyl-3-yl)methyl]-3-[4-[(3-hydroxybenzyl)(2,4,6-
- trimethylbenzenesulfonyl)amino]phenyl]acrylamide MF C38 H36 N2 O4 S
- SR CA
- LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L6 ANSWER 11 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 675868-37-8 REGISTRY
- ED Entered STN: 16 Apr 2004
- CN 2-Propenamide, 3-[4-[[(3-hydroxyphenyl)methyl][(2,4,6trimethylphenyl)sulfonyl]amino]phenyl]-N-[(tetrahydro-2-furanyl)methyl]-(CA INDEX NAME) OTHER NAMES:
- CN 3-[4-[(3-Hydroxybenzyl)(2,4,6-trimethylbenzenesulfonyl)amino]phenyl]-N-[(tetrahydrofuran-2-yl)methyl]acrylamide
- MF C30 H34 N2 O5 S
- SR CA
- LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- L6 ANSWER 12 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 675868-28-7 REGISTRY
- ED Entered STN: 16 Apr 2004
- CN 2-Propenamide, 3-[4-[[(3-hydroxyphenyl)methyl][(2,4,6-trimethyl)henyl)sulfonyllamino|phenyl]-N-[2-(4-pyridinyl)ethyl]- (CA

INDEX NAME) OTHER NAMES:

- CN 3-[4-[(3-Hydroxybenzy1)(2,4,6-trimethylbenzenesulfony1)amino]pheny1]-N-[2-(pyridin-4-y1)ethyl]acrylamide
- MF C32 H33 N3 O4 S
- SR CA
- LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 13 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN

RN 23281-77-8 REGISTRY

ED Entered STN: 16 Nov 1984

CN Acrylamide, N-(p-hydroxybenzyl)- (8CI) (CA INDEX NAME)

MF C10 H11 N O2

CI COM

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 14 OF 15 REGISTRY COPYRIGHT 2008 ACS on STN

RN 13560-56-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenamide, N-[(3,5-diethyl-4-hydroxyphenyl)methyl]-2-methyl- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acrylamide, N-(3,5-diethyl-4-hydroxybenzyl)-2-methyl- (8CI)
OTHER NAMES:

CN 2,6-Diethyl-4-methacryloylaminomethylphenol

MF C15 H21 N O2

CI COM

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, IFICDB, IFIPAT, IFIUDB,

USPATFULL

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE) 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d

CN

- L10 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 13560-56-0 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN 2-Propenamide, N-[(3,5-diethyl-4-hydroxyphenyl)methyl]-2-methyl- (CA INDEX NAME)

OTHER CA INDEX NAMES:

- OTHER NAMES:
- CN 2,6-Diethyl-4-methacryloylaminomethylphenol
- MF C15 H21 N O2
- CI COM
- LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

Acrylamide, N-(3,5-diethyl-4-hydroxybenzyl)-2-methyl- (8CI)

(*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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10/593972 BY Primary Exr. Cynthia Hamilton
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1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s 23281-77-8 L11 1 23281-77-8 (23281-77-8/RN)

=> d

L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN

RN 23281-77-8 REGISTRY

ED Entered STN: 16 Nov 1984

CN Acrylamide, N-(p-hydroxybenzyl)- (8CI) (CA INDEX NAME)

MF C10 H11 N O2

CI COM

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 849686-90-4 L12 1 849686-90-4 (849686-90-4/RN)

=> d

L12 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN

RN 849686-90-4 REGISTRY

ED Entered STN: 03 May 2005

CN 2-Propenamide, N,N-dimethyl-, polymer with N-[(4-hydroxy-3,5-dimethylphenyl)methyl]-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

OTHER NAMES:
CN N,N-Dimethylacrylamide-N-(3,5-dimethyl-4-hydroxybenzyl)methacrylamide copolymer

MF (C13 H17 N O2 . C5 H9 N O)x

CI PMS

PCT Polyacrylic

SR CA

LC

STN Files: CA, CAPLUS

CM 1

```
10/593972 BY Primary Exr. Cynthia Hamilton
    CRN 104835-82-7
    CMF C13 H17 N O2
                   O CH2
Ме
           CH2-NH-C-C-Me
НΟ
     Me
    CM
         2
    CRN 2680-03-7
    CMF C5 H9 N O
Me2N-C-CH-CH2
              1 REFERENCES IN FILE CA (1907 TO DATE)
              1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
              1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
=> s 104835-82-7
L13
            1 104835-82-7
                (104835-82-7/RN)
=> d
L13 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN
    104835-82-7 REGISTRY
ED
    Entered STN: 25 Oct 1986
CN
    2-Propenamide, N-[(4-hydroxy-3,5-dimethylphenyl)methyl]-2-methyl- (CA
     INDEX NAME)
MF
    C13 H17 N O2
CT
    COM
SR
    CAS Client Services
LC
    STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, USPAT2, USPATFULL
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 104835-82-7/crn 16 104835-82-7/CRN L14 => s 849686-90-4/crn L15 0 849686-90-4/CRN => s 23281-77-8/crn L16 2 23281-77-8/CRN => d 1-2 L16 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN RN 845725-93-1 REGISTRY ED Entered STN: 16 Mar 2005 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-[(4-hydroxyphenyl)methyl]-2-propenamide, 1-(4-hydroxyphenyl)-1H-pyrrole-2,5-dione and 2-propenenitrile (9CI) (CA INDEX NAME) MF (C10 H11 N O2 . C10 H7 N O3 . C5 H8 O2 . C3 H3 N)x CI PMS PCT Polyacrylic, Polyvinyl SR CA LC STN Files: CA, CAPLUS, USPATFULL CM 1 CRN 23281-77-8 CMF C10 H11 N O2

Page 108

CM 2 CRN 7300-91-6 CMF C10 H7 N 03

ОН О N О

CM 3

CRN 107-13-1 CMF C3 H3 N

 $H_2C = CH - C = N$

CM 4

CRN 80-62-6 CMF C5 H8 O2

> 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L16 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2008 ACS on STN

RN 845725-90-8 REGISTRY

ED Entered STN: 16 Mar 2005

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with N-[(4-hydroxyphenyl)methyl]-2-propenamide,

1-(4-hydroxyphenyl)-1H-pyrrole-2,5-dione, methyl 2-methyl-2-propenoate and 2-propenenitrile (9CI) (CA INDEX NAME)

MF (C10 H11 N O2 . C10 H7 N O3 . C6 H10 O3 . C5 H8 O2 . C3 H3 N)x CI PMS

.

PCT Polyacrylic, Polyvinyl

SR CA LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 23281-77-8 CMF C10 H11 N O2

CM 2

CRN 7300-91-6 CMF C10 H7 N O3

CM 3

CRN 868-77-9 CMF C6 H10 O3

CM 4

CRN 107-13-1 CMF C3 H3 N

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H_2C = CH - C = N
    CM 5
    CRN 80-62-6
    CMF C5 H8 O2
 H<sub>2</sub>C O
Me-C-C-OMe
               1 REFERENCES IN FILE CA (1907 TO DATE)
               1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
=> d his
     (FILE 'HOME' ENTERED AT 17:01:43 ON 09 SEP 2008)
    FILE 'REGISTRY' ENTERED AT 17:01:55 ON 09 SEP 2008
L1
          4064 S C11H13NO2/MF
L2
             5 S L1 AND ACRYLAMIDE
L3
             0 S HYDROXYBENZYLACRYLAMIDE
L4
            26 S HYDROXYBENZYL AND ACRYLAMIDE
L5
            24 S L4 NOT CHLORO
L6
            15 S L5 NOT TERT
L7
             0 S 13560-55-9/CRN
    FILE 'CAPLUS' ENTERED AT 17:04:50 ON 09 SEP 2008
L8
            13 S L6
L9
             4 S L8 AND PHOTO?
    FILE 'REGISTRY' ENTERED AT 17:05:50 ON 09 SEP 2008
L10
             1 S 13560-56-0
L11
             1 S 23281-77-8
L12
             1 S 849686-90-4
             1 S 104835-82-7
L13
L14
            16 S 104835-82-7/CRN
L15
             0 S 849686-90-4/CRN
L16
             2 S 23281-77-8/CRN
=> file caplus
COST IN U.S. DOLLARS
                                                SINCE FILE
                                                                TOTAL
                                                     ENTRY
                                                              SESSION
FULL ESTIMATED COST
                                                      42.76
                                                               113.48
DISCOUNT AMOUNTS (FOR OUALIFYING ACCOUNTS)
                                                                TOTAL
                                                SINCE FILE
                                                             SESSION
                                                      ENTRY
CA SUBSCRIBER PRICE
                                                       0.00
                                                                 -3.20
```

FILE 'CAPLUS' ENTERED AT 17:09:35 ON 09 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR SIN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 9 Sep 2008 VOL 149 ISS 11 FILE LAST UPDATED: 8 Sep 2008 (20080908/ED)
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Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html => s 110 or 111 or 112 or 113 or 114 or 116

Jpn. Kokai Tokkvo Koho, 36pp.

Reprographic Processes)

CODEN: JKXXAF

Japanese

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4 L10
             2 L11
            1 L12
            2 L13
            10 L14
            1 L16
L17
            16 L10 OR L11 OR L12 OR L13 OR L14 OR L16
=> s 117 not 19
1.18
           14 L17 NOT L9
=> d all 1-14
L18 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
   2007:729107 CAPLUS
AN
DN
    147:128983
ED
    Entered STN: 06 Jul 2007
    Radiation-sensitive resin compositions, interlayer insulators and
TΙ
    microlenses therefrom, and manufacture thereof
IN
    Hanamura, Masaaki; Takamoto, Eiji; Minowa, Takaki
PA
    Jsr Ltd., Japan
```

74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other

Page 112

SO

DT Patent

LA

CC

Section cross-reference(s): 38, 73 FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE PI JP 2007171572 A 20070705 JP 2005-369301 20051222 RR 2007066852 A 20070627 KR 2006-104391 20061026 CN 101206401 A 20080625 CN 2006-10161738 20061219 PRAI JP 2005-369301 A 20051222 CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES [I,A] IPCR G03F0007-027 [I,C]; G03F0007-027 [I,A]; G02B0003-00 [I,C]; G02B0003-00 [I,A]; G03F0007-40 [I,C]; G03F0007-40 [I,A] FTERM 2H025/AA01; 2H025/AA04; 2H025/AA14; 2H025/AB14; 2H025/AB17; 2H025/AC01; 2H025/AD03; 2H025/BE01; 2H025/CB41; 2H025/CB43; 2H025/FA29; 2H096/AA27; 2H096/AA28; 2H096/BA10; 2H096/EA02; 2H096/HA01; 2H096/JA04 KR 2007066852 IPCI C08L0067-02 [I,A]; C08L0067-00 [I,C*] CN 101206401 IPCI G03F0007-027 [I,A]; G03F0007-012 [I,A]; G03F0007-008 [I,C*]; G03F0007-004 [I,A]; G03F0007-16 [I,A]; G03F0007-20 [I,A]; G03F0007-26 [I,A]; G02B0003-00 [I,A]; H01L0021-027 [I,A]; H01L0021-02 [I,C*] The compns. contain (A) copolymers of unsatd. carboxylic acids and/or their anhydrides, epoxy group-containing unsatd. compds., phenolic compds. R1C(:CH2)B(CH2)mC6R2R3R4R5R6 (R1 = H, C1-4 alky1; R2-R6 = H, OH, C1-4 alkyl, where ≥1 of them is OH; B = single bond, CO2, CONH; m = 0-3), and unsatd. comonomers and (B) 1,2-quinonediazide compds. Photolithog, processing of the compns. for forming microlenses or interlayer insulators are also claimed. The compns. show improved development margin and provide patterns with fine profile and good heat and solvent resistance. ST radiation sensitive resin compn microlens interlayer insulator; dimethylhydroxybenzylmethacrylamide glycidyl methacrylate resin compn photosensitivity: naphthoguinonendiazidesulfonate photosensitizer microlens insulator patternable compn IT Dielectric films Microlenses Photoimaging materials (photoimaging compns. containing resins polymerizing (meth)acrvl-containing phenol compds. and epoxy compds. and showing good development margin) 914090-16-7P 943128-53-8P 943128-54-9P 943128-55-0P 943128-56-1P 943128-57-2P 943128-58-3P 943128-59-4P 943128-60-7P 943128-61-8P RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (photoimaging compns. containing resins polymerizing (meth)acryl-containing phenol

compds. and epoxy compds. and showing good development margin)

107761-81-9, 2,3,4,4'-Tetrahydroxybenzophenone

1,2-naphthoguinonediazide-5-

Page 113

142542-03-8 142542-04-9 sulfonate

RL: TEM (Technical or engineered material use); USES (Uses)

(photoimaging compns. containing resins polymerizing (meth)acryl-containing phenol

compds. and epoxy compds. and showing good development margin)

- L18 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2007:9640 CAPLUS
- DN 146:111246
- ED Entered STN: 04 Jan 2007
- TТ Method for preparing a lithographic printing plate precursor
- IN Lingier, Stefaan; Vermeersch, Joan
- PA Agfa-Gevaert, Belg.
- SO Eur. Pat. Appl., 13pp. CODEN: EPXXDW
- DT Patent
- LA English
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

| | FAN.CNT 1 | | | | | | | | | | | | | | | | | | |
|------|-----------|-------|--------------|------|----|------|------|------|---------|------|------|-------|-----|------|---------|-------|-------|------|-----|
| | | | NO. | | | | | | | | | | | | | | | ATE | |
| ΡI | | 1738 | 902 | | | A1 | | 2007 | 0103 | | EP | 200 | 5-1 | 058 | 82 | | 2 | | |
| | | R: | AT, | | | | | | | | | | | | | | | | |
| | | | | | | LT, | LU, | MC, | NL, | PL, | PI | r, R | ο, | SE, | SI, | SK, | TR, | AL, | BA, |
| | *** | 0005 | | LV, | | | | 0007 | 0101 | | | 000 | | 770 | | | | | |
| | 05 | 2007 | 0003:
455 | 875 | | AI | | 2007 | | | | | | | | | | 0060 | |
| | TN | 1891 | CH01 | 122 | | A. | | 2007 | 0633 | | TN | 200 | e-c | 010 | 33 | | 2 | 0000 | 630 |
| ומסס | | | -105 | | | | | | | | TIM | 200 | 6-C | птт | 22 | | | 0000 | 030 |
| LIGI | | | -700 | | | | | | | | | | | | | | | | |
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| PAT | TENT | NO. | | CLA | SS | PATE | NT F | AMIL | Y CL | ASSI | FIC | CATI | ON | COD | ES | | | | |
| | | | | | | | | | | | | | | | | | | | |
| EP | 1738 | 8902 | | | | | | | | | | | | | | | | | |
| | | | | | | B41C | | | [I,C |]; E | 3410 | 2000 | 1-1 | 0 [| I,A] | | | | |
| | | | | ECL | | B41C | | | | | | | | | | | | | |
| US | 200 | 70003 | 875 | | | | | | | | | | | | | | | | |
| | | | | | | G03F | | | [1,C | ; (| :03E | .000 | 7-0 | 0 [. | I,AJ | | | | |
| ON | 100 | 1 455 | | | | 430/ | | | | | D 42 | 000 | 0.1 | 10 | | 1 . D | 41340 | 005 | 2.0 |
| CIV | 189. | 1455 | | IPC. | | [I,A | | -055 | [1, | 4]; | B41 | | 01- | 10 | [I , A |]; B | 41MU | 005- | 30 |
| | | | | TDC | | B41C | | -055 | ET 6 | ·1. | D/11 | con | 01_ | 055 | ET. | a 1 | | | |
| | | | | | | B41C | | | 1 - / 1 | -1, | Di | | 01 | 055 | [+ 7 / |] | | | |
| IN | 2006 | 6CH01 | 133 | | | | | | FICM | . 71 | | | | | | | | | |
| | | | d is | | | | | | | | rki | ing I | hea | t-s | ensi | tive | lit | hog. | |
| | | | g pl | | | | | | | | | | | | | | | | |
| | | | | | | | | - | - | | - | | _ | | | | | | |

- providing
- a support having a hydrophilic surface or which is provided with a hydrophilic laver, (ii) coating a first solution comprising a first polymer,
- said first polymer being soluble in an alkaline solution, (iii) coating a second
- solution comprising a heat-sensitive pos.-working imaging composition, and (iv)

coating a third solution comprising a third polymer or surfactant wherein said third polymer or said surfactant reduce the penetrability of an alkaline

developer solution into the coating. The printing plates obtained by

- this method exhibits a reduced dot-loss, resulting in an improved developing latitude.
- ST lithog printing plate precursor prepn
- IT Lithographic plates
 - (method for preparing lithog, printing plate precursor)
- IT Polysiloxanes, uses
 - RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 - (polyether-, Tegowet 265; method for preparing lithog. printing plate precursor)
- IT Polysiloxanes, uses
 - RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 - (polyoxyalkylene-, graft, Tegoglide 410; method for preparing lithog. printing plate precursor)
- IT Polyoxyalkylenes, uses
 - RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 - (polysiloxane-, graft, Tegoglide 410; method for preparing lithog. printing plate precursor)
- IT Polyethers, uses
 - RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 - (siloxane-, Tegowet 265; method for preparing lithog. printing plate precursor)
- IT 7429-90-5, Aluminum, uses
 - RL: TEM (Technical or engineered material use); USES (Uses) (electrochem. treated; method for preparing lithog. printing plate precursor)
- T 476436-67-6P
 - RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (method for preparing lithog. printing plate precursor)
- IT 100346-90-5, Alnovol SPN 452
 - RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (method for preparing lithog. printing plate precursor)
- IT 90-50-6, 3,4,5-Trimethoxycinnamic acid 2580-56-5, Basonyl Blue 640 134127-48-3, S 0094
 - RL: TEM (Technical or engineered material use); USES (Uses)
- (method for preparing lithog, printing plate precursor)
 RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE (1) Kitson, P; WO 2005018934 A 2005 CAPLUS
 - (2) Luiz, A; US 2004152018 A1 2004
- L18 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2006:873569 CAPLUS
- DN 147:199933
- ED Entered STN: 29 Aug 2006

- TI Lithographic printing plates by means of ink-jet printing
- AU Anon.
- CS UK
- SO Research Disclosure (2006), 507(July), P886-P891 (No. 507035)
- CODEN: RSDSBB; ISSN: 0374-4353
- PB Kenneth Mason Publications Ltd.
- DT Journal; Patent
- LA English
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------|----------------|------|----------|-----------------|----------|
| | | | | | |
| PI | RD 507035 | | 20060710 | RD 2006-507035 | 20060710 |
| PRAI | RD 2006-507035 | | 20060710 | | |
| OT BCC | • | | | | |

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

AB Preparation of lithog. printing plates by direct ink-jet printing is described.

By image-wise jetting droplets on a substrate, for example an aluminum support, a printing master is formed. A major problem associated with

printing techniques is the chemical resistance of the jetted drops towards

press chems. during the printing step. The lower the chemical resistance of

the droplets, the lower the run length of the plate will be. As a solution

to this problem, a UV-curing step or a heat step is often performed prior to using the plate. In this work, the authors have identified an ink-jet fluid comprising a specific binder which is characterized by a min.

Resistance Parameter value or CRP value. It was found that printing masters prepared by jetting these specific binders on an aluminum substrate,

allow a high number of printed copies without the need for an addnl. UV-curing or heat-step.

ST lithog printing plate fabrication ink jet printing; ink jet printing phenolic resin binder lithog plate fabrication

IT Ink-jet printing

Lithographic plates

(fabrication of lithog. printing plates by ink-jet printing using jetting formulation based on phenolic resin with N-containing pendants for

increased chemical resistance towards press room chems.)

IT Inks

(jet-printing; fabrication of lithog. printing plates by ink-jet printing using jetting formulation based on phenolic resin with N-containing pendants for increased chemical resistance towards press

room chems.)

T Polysiloxanes, uses

RL: NUU (Other use, unclassified); USES (Uses)

(polyoxyalkylene-, graft, Tegoglide 410; characterization of chemical

resistance of polymer binder coatings for ink-jet printing fabrication of lithog, printing plates) Polvoxyalkylenes, uses RL: NUU (Other use, unclassified); USES (Uses) (polysiloxane-, graft, Tegoglide 410; characterization of chemical resistance of polymer binder coatings for ink-jet printing fabrication of lithog, printing plates) 2580-56-5, Basonvl blue 640 RL: TEM (Technical or engineered material use); USES (Uses) (Basonyl blue 640; fabrication of lithog, printing plates by ink-jet printing using jetting formulation based on phenolic resin with N-containing pendants for increased chemical resistance towards press room chems.) IT 57534-43-7, Zonyl FSA RL: TEM (Technical or engineered material use); USES (Uses) (Zonyl FSA, substrate coating; fabrication of lithog, printing plates by ink-jet printing using jetting formulation based on phenolic resin with N-containing pendants for increased chemical resistance towards press room chems.) 67-64-1, Acetone, uses 111-76-2 RL: NUU (Other use, unclassified); USES (Uses) (characterization of chemical resistance of polymer binder coatings for ink-jet printing fabrication of lithog. printing plates) ΤТ 141634-00-6 182364-71-2 855472-18-3 917976-88-6 944250-49-1 944250-53-7 944250-56-0 944250-57-1 RL: PRP (Properties) (characterization of chemical resistance of polymer binders for iettina formulations for ink-jet printing fabrication of lithog. printing plates) 944250-50-4 944250-51-5 944250-54-8 ΙT 883726-92-9 RL: PRP (Properties); TEM (Technical or engineered material use); USES (fabrication of lithog, printing plates by ink-jet printing using jetting formulation based on phenolic resin with N-containing pendants for increased chemical resistance towards press room chems.) 96-48-0 1320-67-8 7429-90-5, Aluminum, uses TT RL: TEM (Technical or engineered material use); USES (Uses) (fabrication of lithog, printing plates by ink-jet printing using jetting formulation based on phenolic resin with N-containing pendants for increased chemical resistance towards press room chems.) L18 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN AN 2005:1155390 CAPLUS DN 143:413519 ED Entered STN: 28 Oct 2005 Negative working, heat-sensitive lithographic printing plate precursor TN Vermeersch, Joan; Van, Damme Marc PA Agfa-Gevaert N.V., Belg.

U.S. Pat. Appl. Publ., 15 pp.

SO

CODEN: USXXCO

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DT Patent
LA
   English
    ICM G03C001-492
IC
INCL 430270100
    74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
     Section cross-reference(s): 35, 38
FAN.CNT 1
     PATENT NO.
                       KIND DATE
                                          APPLICATION NO.
                                                                  DATE
РΤ
    US 20050238994
                        A1 20051027 US 2005-113878
                                                                  20050425
     US 7348126
                         B2
                               20080325
     EP 1604818
                        A1 20051214
B1 20070425
                                          EP 2004-102654
                                                                   20040611
     EP 1604818
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,
HR
     JP 2005316471
JP 2005316471 A
CN 1690850 A
PRAI EP 2004-101766 A
                               20051110
                                           JP 2005-126863
                                                                  20050425
                                                                 20050427
                               20051102
                                          CN 2005-10067057
                               20040427
     US 2004-101766 A
US 2004-570767P P
EP 2004-102654 A
US 2004-579618P P
                               20040513
                               20040611
                               20040615
 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
                       G03C001-492
 US 20050238994 ICM
                 INCL
                      430270100
                 IPCI G03C0001-76 [I,A]; G03F0007-038 [I,A]; G03F0007-20
                        [I,A]; G03F0007-30 [I,A]
                 IPCR B41C0001-10 [I,C*]; B41C0001-10 [I,A]; G03C0001-005
                       [I.C*]; G03C0001-492 [I.A]
                 NCL
                       430/270.100; 430/271.100; 430/302.000; 430/325.000;
                       430/944.000
                 ECLA B41C001/10A2
 EP 1604818
                IPCI B41C0001-10 [I,C]; B41C0001-10 [I,A]
                IPCR B41C0001-10 [I,C]; B41C0001-10 [I,A]
                ECLA B41C001/10A2
 JP 2005316471
                IPCI G03F0007-11 [ICM, 7]; B41N0001-14 [ICS, 7]; B41N0001-12
                        [ICS, 7, C*]; G03F0007-00 [ICS, 7]; G03F0007-004 [ICS, 7]
                 FTERM 2H025/AB03; 2H025/AC08; 2H025/AD01; 2H025/CB28;
                        2H025/CB41; 2H025/CB54; 2H025/CC20; 2H025/DA18;
                        2H025/DA35; 2H025/DA36; 2H025/DA40; 2H096/AA08;
                        2H096/BA20; 2H096/CA05; 2H096/EA04; 2H114/AA04;
                        2H114/AA22; 2H114/AA24; 2H114/AA30; 2H114/BA01;
                        2H114/BA05; 2H114/BA10; 2H114/DA59; 2H114/DA75;
                        2H114/EA01; 2H114/EA02; 2H114/FA10; 2H114/FA16
 CN 1690850
                 IPCI
                       G03F0007-00 [ICM, 7]; B41C0001-00 [ICS, 7]
                      G03F0007-00 [I,C*]; G03F0007-00 [I,A]
   A neg.-working lithog. printing plate precursor is disclosed comprising
     a support having a hydrophilic surface or which is provided with a
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hydrophilic layer, a coating comprising an IR absorbing agent, a first layer comprising an aqueous dispersion comprising hydrophobic

thermoplastic

polymer particles and a first hydrophobic binder, and a second layer located between said first layer and said support which comprises a hydrophobic binder, characterized in that said first hydrophobic binder is a phenolic resin and said second hydrophobic binder is a polymer comprising at least one sulfonamide group. neg working heat sensitive lithog printing plate precursor ΙT Lithographic plates (neg. working, heat-sensitive lithog, printing plate precursor) тт 476436-67-6P RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (neg. working, heat-sensitive lithog. printing plate precursor containing) 3251-84-1, Flexo-blue 630 9003-54-7, Acrylonitrile-styrene copolymer 100346-90-5, Alnovol SPN 452 134127-48-3, S0094 RL: TEM (Technical or engineered material use); USES (Uses) (neg. working, heat-sensitive lithog, printing plate precursor containing) RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD (1) Anon; JP 2004117534 CAPLUS (2) Anon; GB 1084070 1967 CAPLUS (3) Anon; DE 1447963 1968 (4) Anon; GB 1154749 1969 (5) Anon; GB 1419512 1975 CAPLUS (6) Anon; FR 2300354 1976 CAPLUS (7) Anon; EP 0291760 1988 CAPLUS (8) Anon; EP 0292801 1988 CAPLUS (9) Anon; DE 4001466 A1 1991 CAPLUS (10) Anon; EP 0537633 A1 1993 CAPLUS (11) Anon; EP 0601240 A1 1994 CAPLUS (12) Anon; EP 0625728 A2 1994 CAPLUS (13) Anon; EP 0659909 A1 1995 CAPLUS (14) Anon; DE 4417907 A1 1995 CAPLUS (15) Anon; DE 4423140 A1 1996 CAPLUS (16) Anon; EP 0770494 A2 1997 CAPLUS (17) Anon; EP 0770495 A1 1997 CAPLUS (18) Anon: EP 0770496 A1 1997 CAPLUS (19) Anon: EP 0770497 A1 1997 CAPLUS (20) Anon; EP 0800928 1997 CAPLUS (21) Anon; WO 9739894 A1 1997 CAPLUS (22) Anon; EP 0823327 A2 1998 CAPLUS (23) Anon; EP 0864420 A1 1998 CAPLUS (24) Anon: EP 0881096 A1 1998 CAPLUS (25) Anon; EP 0894622 A2 1999 CAPLUS (26) Anon; EP 0901902 A2 1999 CAPLUS (27) Anon; EP 0933682 A2 1999 CAPLUS

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(37) Anon: JP 2004117534 2004 CAPLUS
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(54) Van Damme: US 20020168582 A1 2002
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L18 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
AN
   2005:160711 CAPLUS
    142:269261
DN
ED
   Entered STN: 25 Feb 2005
TI Base plate for lithographic printing plate
IN Ozaki, Jun; Uozumi, Yasuhiro
PA Okamoto Chemical Industry Co. Ltd., Japan
SO U.S. Pat. Appl. Publ., 12 pp.
    CODEN: USXXCO
DT Patent
LA English
IC
    ICM G03F007-00
INCL 430302000
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
    Section cross-reference(s): 38
FAN.CNT 1
    PATENT NO.
                      KIND DATE APPLICATION NO.
                                          _____
PΤ
    US 20050042546
                      A1 20050224 US 2004-921935
    JP 2005097546
                       A 20050414 JP 2004-209456
A1 20050921 EP 2004-254951
    EP 1577330
                                                                20040818
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK,
PRAI JP 2003-298043
                       A
                               20030822
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
US 20050042546 ICM G03F007-00
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INCL 430302000

G03F0007-00 [ICM, 7] TPCT B41C0001-10 [I,C*]; B41C0001-10 [I,A]; C08F0220-00 IPCR [I.C*]; C08F0220-58 [I,A]; C08F0222-00 [I,C*]; C08F0222-40 [I.A] NCL 430/302.000 B41C001/10A; C08F220/58; C08F222/40 ECLA JP 2005097546 IPCI C08F0220-58 [ICM, 7]; C08F0220-00 [ICM, 7, C*]; C08F0222-40 [ICS,7]; C08F0222-00 [ICS,7,C*]; G03F0007-00 [ICS,7]; G03F0007-004 [ICS,7]; G03F0007-023 [ICS, 7]; G03F0007-033 [ICS, 7] TPCR C08F0220-00 [I,C*]; C08F0220-58 [I,A]; C08F0222-00 [I,C*]; C08F0222-40 [I,A]; G03F0007-00 [I,A]; G03F0007-00 [I,C*]; G03F0007-004 [I,A]; G03F0007-004 [I,C*]; G03F0007-023 [I,A]; G03F0007-023 [I,C*]; G03F0007-033 [I,A]; G03F0007-033 [I,C*] FTERM 2H025/AA04; 2H025/AA12; 2H025/AB03; 2H025/AC08; 2H025/AD03; 2H025/BE01; 2H025/CB10; 2H025/CB15; 2H025/CB43; 2H025/CB45; 2H025/CC11; 2H096/AA06; 2H096/BA10; 2H096/EA02; 2H096/GA08; 4J100/AB02R; 4J100/AB03R; 4J100/AB07R; 4J100/AJ02R; 4J100/AK32R; 4J100/AL03R; 4J100/AL04R; 4J100/AL05R; 4J100/AL08R; 4J100/AL75R; 4J100/AM02R; 4J100/AM15R; 4J100/AM21P; 4J100/AM21R; 4J100/AM49Q; 4J100/AQ08R; 4J100/AQ12R; 4J100/BA02R; 4J100/BA03P; 4J100/BA03Q; 4J100/BA03R; 4J100/BA59R; 4J100/BC43P; 4J100/BC43R; 4J100/CA04; 4J100/CA05; 4J100/JA37 EP 1577330 IPCI C08F0220-58 [ICM,7]; C08F0220-00 [ICM,7,C*]; C08F0222-40 [ICS,7]; C08F0222-00 [ICS,7,C*]; G03F0007-023 [ICS,7]; B41C0001-10 [ICS,7] IPCR B41C0001-10 [I,C*]; B41C0001-10 [I,A]; C08F0220-00 [I,C*]; C08F0220-58 [I,A]; C08F0222-00 [I,C*]; C08F0222-40 [I,A] ECLA B41C001/10A; C08F220/58; C08F222/40

AB The object of the present invention is to provide a base plate for a lithog, printing plate comprising a photosensitive layer that prevent the occurrence of the fingerprint rub-off phenomena and abrasion phenomena and

offer superior anti-abrasiveness and chemical resistance. The present invention provides copolymers having monomeric units shown in formulas I and II (R1, R2 = H, C1-12-alkyl); an image-forming composition comprising the

copolymer; and a base plate for a lithog, printing plate comprising, on a support structure, a photosensitive layer that contains the copolymer.

ST base lithog printing plate

ΙT Lithographic plates

(base plate for lithog, printing plate) 845725-94-2P

ΙT 845725-92-0P 845725-93-1P

845725-95-3P RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(base plate for lithog. printing plate)

- L18 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 2005:146867 CAPLUS
- DN 142:374225
- ED Entered STN: 21 Feb 2005
- TI Synthesis and applications of novel fluoroalkyl end-capped oligomers containing 3.5-dimethyl-4-hydroxybenzyl and 3-(2H-benzotriazol-2-v1)-4hydroxyphenyl segments
- Sawada, Hideo; Kawasaki, Nobuhito; Sasazawa, Kazuo; Kawase, Tokuzo AU CS Department of Materials Science and Technology, Faculty of Science and
- Technology, Hirosaki University, Hirosaki, Japan SO International Journal of Polymeric Materials (2005), 54(4), 311-332
- CODEN: IJPMCS; ISSN: 0091-4037 PB Taylor & Francis, Inc.
- DT Journal
- LA English
- CC 35-4 (Chemistry of Synthetic High Polymers)
- AB New fluoroalkyl end-capped co-oligomers containing 3,5-dimethyl-4hydroxybenzyl segments [RF-(DMHB)x-(DMAA)y-RF] were prepared by the reactions of fluoroalkanoyl peroxides with N-(3,5-dimethyl-4hydroxybenzyl)methacrylamide [DMHB] and N, N-dimethylacrylamide (DMAA). Similarly, fluoroalkyl end-capped homo- and co-oligomers containing 3-(2H-benzotriazol-2-v1)-4-hydroxyphenyl segments [RF-(BTRI)x-(Co-M)y-RF] were prepared by the reactions of fluoroalkanovl peroxides with 2-[3-(2H-benzotriazol-2-vl)-4-hydroxyphenyl]ethyl methacrylate [BTRI] and co-monomers [Co-M] such as acrylic acid (ACA), DMAA, and acryloylmorpholine (ACMO). The fluoroalkyl end-capped DMHB and BTRI co-oligomers thus obtained were soluble not only in water but also in common

organic solvents. In addition, these fluorinated co-oligomers were able

reduce the surface tension of 0.1 N NaOH solns. quite effectively to around 20 mN/m levels, although the corresponding non-fluorinated co-oligomers were not effective in reducing the surface tension of 0.1 N NaOH solns. A modified polystyrene film surface treated with these fluoroalkyl end-capped DMHB and BTRI co-oligomers exhibited a good oleophobicity imparted by fluorine with an excellent hydrophilicity. XPS analyses showed that end-capped fluoroalkyl groups in RF-(BTRI)n-RF homo-oligomer were arranged regularly above the modified polystyrene surface. Of particular interest, it was demonstrated that the self-assembled mol. aggregates formed by RF-(DMHB)x-(DMAA)y-RF

to

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10/593972 BY Primary Exr. Cynthia Hamilton
     co-oligomers could interact strongly with
7,7,8,8-tetracyanoquinodimethane
     (TCNQ) as a quest mol. to form a host-quest intermol. complex, though
such
     a host-quest interaction was not observed in the corresponding
    non-fluorinated DMHB co-oligomer.
     fluoroalkyl terminated hydroxybenzyl methacrylamide oligomer;
     benzotriazolyl hydroxyphenylethyl methacrylate oligomer fluoroalkyl
     terminated; surfactant fluoroalkyl terminated acrylic polymer
IT
    Surfactants
        (fluoroalkyl end-capped oligomers containing
3,5-dimethyl-4-hydroxybenzyl
        and 3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl segments)
TT
    Polymerization
        (of 3,5-dimethyl-4-hydroxybenzyl)methacrylamide and
        3-(2H-benzotriazol-2-y1)-4-hydroxyphenyl]ethyl methacrylate with
        acrylic monomers in presence of fluoroalkanovl peroxides)
     Hydrophilicity
     Self-assembly
     Solubility
     Surface tension
        (of fluoroalkyl end-capped oligomers containing 3,5-dimethyl-4-
        hydroxybenzyl and 3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl segments)
     Fluoropolymers, preparation
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
        (oligomeric: synthesis and applications of fluoroalkyl end-capped
        oligomers containing 3,5-dimethyl-4-hydroxybenzyl and
3-(2H-benzotriazo1-2-
        vl)-4-hydroxyphenyl segments)
     1518-16-7, TCNQ
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (guest mol.; in interaction of self-assembled amphiphilic
        perfluoroalkoxyl-terminated acrylic oligomers)
     56347-79-6DP, reaction products with
(dimethylhydroxybenzyl)methacrylamide
     and [(benzotriazolyl)hydroxyphenyl]ethyl methacrylate polymers
     96478-13-6DP, a, m-bis(perfluoroalkoxyl)-terminated
     133414-70-7DP, reaction products with
(dimethylhydroxybenzyl)methacrylamid
     e and [(benzotriazolyl)hydroxyphenyl]ethyl methacrylate polymers
     133414-71-8DP, reaction products with
(dimethylhydroxybenzyl)methacrylamid
     e and [(benzotriazolv1)hydroxyphenv1]ethyl methacrylate polymers
     215384-92-2DP, Acrylic acid-2-[3-(2H-benzotriazol-2-yl)-4-
     hydroxyphenyl]ethyl methacrylate copolymer, a, m-
     bis(perfluoroalkoxvl)-terminated
                                        464193-86-0DP, α,ω-
     bis(perfluoroalkoxyl)-terminated
                                        464193-87-1DP, α, ω-
     bis(perfluoroalkoxyl)-terminated 849686-90-4DP,
    N, N-Dimethylacrylamide-N-(3, 5-dimethyl-4-hydroxybenzyl) methacrylamide
     copolymer, a, m-bis(perfluoroalkoxyl)-terminated
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
```

(oligomeric; synthesis and applications of fluoroalkyl end-capped oligomers containing 3,5-dimethyl-4-hydroxybenzyl and

3-(2H-benzotriazol-2-

yl)-4-hydroxyphenyl segments)

RE

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(19) Yoshino, N: Langmuir 1995, V11, P466 CAPLUS
L18 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
    1998:653687 CAPLUS
    129:283448
OREF 129:57657a,57660a
   Entered STN: 15 Oct 1998
    Radiation sensitive composition and registration materials for
    lithographic printing plates prepared therewith
    Elsasser, Andreas; Gaschler, Otfried; Haberhauer, Helmut; Eichhorn,
IN
    Mathias; Grabley, Fritz-Feo; Leichsenring, Thomas; Koletar, Gabor I.;
    Seeley, Douglas A.
PA
   AGFA-GEVAERT A.-G., Germany
SO Eur. Pat. Appl., 8 pp.
    CODEN: EPXXDW
DT
   Patent
LA
   German
    ICM B41C001-10
TC
    ICS B41M005-40
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN.CNT 1
    PATENT NO.
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PI EP 867278
                        A1 19980930 EP 1998-105080
B1 20011121
                                                                19980320
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        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, PT, IE,
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    DE 19712323 A1
US 6100004 A
                              19981001
                                          DE 1997-19712323
                                                                 19970324
                                         US 1998-38162
                                                                 19980311
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                               19981104
JP 10293398 A
PRAI DE 1997-19712323 A
                                         JP 1998-66828
                               19970324
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PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD

CLASS

B41C001-10

B41M005-40

B41C0001-10 [ICM, 6]; B41M0005-40 [ICS, 6]

TCM

ICS

IPCI

EP 867278

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G03F0007-004 [I,C*]; G03F0007-004 [I,A]; B41C0001-10
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                        B41M005/46B; B41C001/10A
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                        B41C001/10A; B41M005/40F2
JP 10293398
                 IPCI
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                 ECT.A
                        B41M005/46B; B41C001/10A
AB
    A pos.- or neg.-working radiation-sensitive resist mixture contains a
soot.
     pigment with a primary particle size of at least 80 nm as an IR-absorbing
    component, wherein the soot pigment is dispersed in a polymer containing
an
     acid unit having pKs value of smaller than 13.
    radiation sensitive resist compn printing plate; offset lithog plate soot
     pigment
    Lithographic plates
        (offset; radiation sensitive composition and registration materials
        lithog. printing plates prepared therewith)
     Photoresists
     Soot
        (radiation sensitive composition and registration materials for
lithog.
```

printing plates prepared therewith) TT Carbon black, uses Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(radiation sensitive composition and registration materials for lithog.

printing plates prepared therewith)

23121-00-8 24979-70-2, Poly(4-hydroxy styrene) 27029-76-1 31693-08-0, 2-Hydroxyethyl methacrylate-methacrylic acid copolymer 38333-84-5, Acetone-pyrogallol copolymer 68510-93-0 110254-07-4 128067-80-1, (4-Hydroxy-3,5-dimethylbenzyl)methacrylamide homopolymer 155599-65-8 213902-63-7

RL: TEM (Technical or engineered material use); USES (Uses) (radiation sensitive composition and registration materials for lithog.

printing plates prepared therewith)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD RE

(1) Clark, F; WO 9401280 A 1994

(2) Davi, H: WO 9620429 A 1996 CAPLUS

(3) Minnesota Mining & Mfg: EP 0562952 A 1993 CAPLUS

(4) Scitex Corp Ltd; WO 9700175 A 1997 CAPLUS

L18 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

1996:635036 CAPLUS

DN 125:261365

OREF 125:48555a,48558a

Entered STN: 28 Oct 1996

TI Polymers of acrylamide derivatives and their use as binders in light-sensitive compositions

IN Eichhorn, Mathias; Elsaeser, Andreas

PA Hoechst A.-G., Germany SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Pat.ent.

LA German TC ICM C08F020-60

ICS G03F007-023

74-10 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 37 FAN ONT 1

| E PAIN. | CIVI I | | | | | |
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| | | | | | | |
| PI | DE 19507618 | A1 | 19960905 | DE 1995-19507618 | 19950304 | |
| | EP 731113 | A2 | 19960911 | EP 1996-102835 | 19960226 | |
| | EP 731113 | A3 | 19970122 | | | |
| | EP 731113 | B1 | 19990113 | | | |
| | R: BE, DE, FR, | GB, II | r, NL | | | |
| | US 5700621 | A | 19971223 | US 1996-607809 | 19960228 | |
| | JP 08259627 | A | 19961008 | JP 1996-46417 | 19960304 | |
| | BR 9600888 | A | 19971230 | BR 1996-888 | 19960304 | |
| PRA1 | DE 1995-19507618 | A | 19950304 | | | |
| CLAS | SS | | | | | |

PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

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EP 731113
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                       G03F0007-039 [I.A]
                 NCL
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                       C08F020/60; G03F007/023P
 JP 08259627
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                       G03F0007-032 [ICS,6,C*]; G03F0007-039 [ICS,6]
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 BR 9600888
                IPCI
                       G03C0001-695 [ICM, 6]
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                       G03F0007-022 [I,C*]; G03F0007-022 [I,A]; C08F0020-00
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                        [I,C*]; G03F0007-037 [I,A]; G03F0007-039 [I,C*];
                       G03F0007-039 [I,A]
AB
   Polymers of monomers such as N-(acryloylaminomethyl)phthalimide (I),
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N-(methacryloylaminomethyl)phthalimide, and N-(acryloylaminomethyl)-1,1-
     dioxo-1,2-benzisothiazol-3(2H)-one (II) (e.g., I homopolymer,
     I-2-hydroxyphenyl methacrylate copolymer, acrylic acid-II-2-hydroxyphenyl
    methacrylate copolymer, or I-Me methacrylate-styrene copolymer) are
prepared
      The polymers are insol. in water and soluble or swellable in aqueous
alkali
     solution and are used as binders for 1.2-guinone diazides in
light-sensitive
     compns. for the preparation of printing plates with good printing
properties
    and resistance to organic cleaning solvents.
    acrylamide polymer binder light sensitive diazide; phthalimide
    acrylamidomethyl binder light sensitive diazide; saccharin
    acrylamidomethyl binder light sensitive diazide;
     acrylamidomethylphthalimide polymer binder light sensitive diazide;
    acrylamidomethylbenzisothiazolone polymer binder light sensitive diazide;
     printing plate light sensitive diazide binder
    Binding materials
        (acrylamide derivative polymers; preparation and use with diazides in
        light-sensitive compos. for manufacture of printing plates)
     Printing plates
        (light-sensitive compns. containing diazo compds. and binders
comprising
        acrylamide derivative polymers for manufacture of)
     Light-sensitive materials
        (use of diazo compds. with binders comprising acrylamide derivative
        polymers for manufacture of printing plates)
IT
     Diazo compounds
     RL: MOA (Modifier or additive use); MSC (Miscellaneous); NUU (Other use,
     unclassified); USES (Uses)
        (use with binders comprising acrylamide derivative polymers in
        light-sensitive compns. for manufacture of printing plates)
     80500-95-4P, N-(Acryloylaminomethyl)phthalimide polymer 182364-70-1P,
     N-(Acryloylaminomethyl)phthalimide-2-hydroxyphenyl methacrylate copolymer
     182364-71-2P, 2-Hydroxyphenyl
methacrylate-N-(methacryloylaminomethyl)phth
     alimide copolymer 182364-72-3P
                                     182364-73-4P, Acrylic
     acid-N-(Acrylovlaminomethyl)phthalimide-2-hydroxyphenyl methacrylate
    copolymer
                182364-74-5P
                               182364-75-6P 182364-76-7P
     182364-78-9P
    RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP
     (Preparation); USES (Uses)
        (preparation and use as binders for diazides in light-sensitive
compns. for
       manufacture of printing plates)
L18 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
AN
     1995:994642 CAPLUS
DN
    124:86996
OREF 124:16351a
    Entered STN: 22 Dec 1995
    Preparation of 3-(4-hydroxy-3,5-di-tert-butylphenyl)-2-isoxazolines as
     antirheumatics
TN
    Schwab, Wilfired; Anagnostopulos, Hiristo; Ryder, Bartlett Robert;
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Schleyerbach, Rudolf; Weithmann, Klaus Ulrich

- PA Hoechst A.-G., Germany
- SO Ger. Offen., 50 pp.
- CODEN: GWXXBX
- DT Patent
- LA German
- IC ICM C07D261-04
- ICA C07D521-00; C07B051-00
- ICI C07D413-04, C07D261-04, C07D213-24, C07D333-06, C07D303-12, C07D257-04; C07D417-04, C07D261-04, C07D277-28
- CC 28-6 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1
FAN.CNT 1

| PAN. | PA' | TENT NO. | | | KIND | | DATE | | APP | LICAT | ION | NO. | | DATE | |
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| PI | DE
TW
CA
WO | 4408084
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2185004
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004 | | 199403
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03 |
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| | AU | 9519481 | | | A | | 19950925 | | ΑU | 1995- | 1948 | 1 | | 199503 | 103 |
| | AU | 684914 | | | B2 | | 19950925
19980108
19961227
19990630 | | | 4005 | | | | 400500 | |
| | EP | 749429 | | | AI | | 19961227 | | EP | 1995- | 9121 | 9 / | | 199503 | 103 |
| | EP | 749429 | - | | B1 | | 19990630 | 0.0 | 0.0 | | | | | | 0.77 |
| | | R: AT, | BE, | CH, | DE, | DK, | ES, FR, | GB, | GR | , 1E, | II, | ьı, | LU, | NL, PI, | SE |
| | CIN | 1143956 | | | A | | 19970226
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| | CIN | 1056836 | | | C | | 20000927 | | | | 0.450 | | | 400500 | |
| | HU | 76481 | | | AZ
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19960906
19980929
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| | 3.00 | 101777 | | | | | 100000715 | | 3.00 | 1995- | 0101 | 12 | | 199303 | 103 |
| | MI. | 2125046 | | | 1 | | 19990715 | | EC. | 1995- | 0121 | 9/ | | 199503 | 103 |
| | NO | 2133046 | | | 12 | | 19991016 | | NO. | 1006- | 3560 | 91 | | 199303 | 103 |
| | ET | 0603360 | | | 2 | | 10060006 | | E.T. | 1006 | 3500 | | | 100600 | 0.6 |
| | IIC | 501/627 | | | 7 | | 10000000 | | TTC | 1006- | 7047 | 43 | | 199611 | 10 |
| DDAT | 05 | 1004-440 | 0001 | | 2 | | 10040210 | | 05 | 1330- | 7047 | 40 | | 199011 | .13 |
| LIGIT | MO | 1995_FD7 | 84 | | Tel | | 19950303 | | | | | | | | |
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| | | NO. | CLA | | PATEN | T E | FAMILY CL | ASSI | FIC | ATION | COD | ES | | | |
| DE | 440 | 3084 | ICM | | C07D2 | | | | | | | | | | |
| | | | ICS | | | | -04; C07D: | | | | | | | | |
| | | | TCA | | | | -00; C07B | | | 11011 | .001 | 120, | 1101 | | |
| | | | ICI | | | | -04, C07D | | | C07F | 213- | 24. | C07D | 333-06. | |
| | | | | | | 03- | -12, C07D | | | | | | | | |
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; C07D026
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; A61K003 | 1-18
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1-42 | 7D02 | 61-0
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; A61K003 | ;
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       C07D0261-04 [ICI,6]; C07D0261-00 [ICI,6,C*];
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       C07D0521-00 [ICA,6]; C07B0051-00 [ICA,6]
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       C07D413/12+261+257; C07D417/04+277B+261; C07F009/653
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C07D0213-24 [ICI,6]; C07D0213-00 [ICI,6,C*]; C07D0333-06 [ICI,6]; C07D0333-00 [ICI,6,C*]; C07D0303-12 [ICI,6]; C07D0303-00 [ICI,6,C*];

TW 419469

CA 2185004

| 10/593972 BY | Primary D | Exr. Cynthia Hamilton |
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| | | [I,C*]; A61K0031-5377 [I,A]; A61P0011-00 [I,C*]; A61P0011-00 [I,A]; A61P0029-00 [I,C*]; A61P0037-00 [I,A]; A61P0039-00 [I,A]; A61P0037-00 [I,A]; C07C0205-00 [I,C*]; C07C0205-51 [I,A]; C07D0261-00 [I,C*]; C07D0261-04 [I,A]; C07D0261-8 [I,A]; C07D0261-20 [I,A]; C07D0263-00 [I,C*]; C07D0261-30 [I,A]; C07D0263-30 [I,C*]; C07D0413-04 [I,A]; C07D0417-04 [I,A]; C07D0417-14 [I,A]; C07D0417-14 [I,A]; C07D0417-14 [I,A]; C07D0417-14 [I,A] |
| WO 9524397 | IPCI | C07D0261-04 [ICM,6]; A61K0031-42 [ICS,6]; C07D0261-08 [ICS,6]; C07F0009-653 [ICS,6]; C07F0009-00 [ICS,6,C*]; C07D0413-04 [ICS,6]; C07D0413-12 [ICS,6]; C07D0413-00 [ICS,6,C*]; C07D0261-20 [ICS,6]; C07D0261-00 |
| [ICS, 6, C*] | | |
| | IPCR | A61R0031-41 [I,C*]; A61R0031-41 [I,A]; A61R0031-42 [I,C*]; A61R0031-42 [I,A]; A61R0031-42 [I,A]; A61R0031-423 [I,C*]; A61R0031-423 [I,C*]; A61R0031-425 [I,A]; A61R0031-436 [I,C*]; A61R0031-436 [I,A]; A61R0031-535 [I,C*]; A61R0031-535 [I,A]; A61R0031-537 [I,C*]; A61R0031-537 [I,A]; A61R0031-537 [I,A]; A61R0031-537 [I,A]; A61R0031-50 [I,C*]; A61R0031-50 [I,C*]; A61R0031-50 [I,C*]; A61R0031-50 [I,C*]; A61R0031-50 [I,C*]; A61R0031-50 [I,C*]; A61R0011-00 [I,A]; C0700261-00 [I,C*]; C0700261-04 [I,A]; C0700261-08 [I,A]; C0700261-08 [I,A]; C0700261-30 [I,C*]; C0700263-30 [I,A]; C0700413-00 [I,C*]; C0700417-04 [I,A]; C070009-00 [I,C*]; C0700417-04 [I,A]; C070009-00 [I,C*]; C0700017-04 [I,A]; C070009-05 [I,A]; C0700017-06 [I,C*]; C0700017-06 [I,A]; C0700017-06 [I,A]; C0700017-06 [I,C*]; C0700017-06 [I,A]; C0700017-06 [I,C*]; C0700017-06 [I,A]; C0700017-06 [I,C*]; C0700017-06 [I,A]; C0700017-07 [I,A]; C0700017-07 [I,A]; C0700017-07 [I,C*]; C0700017-07 [I,A]; C0700017-07 [I,A]; C0700017-07 [I,A]; C0700017-07 [I,C*]; C0700017-07 [I,A]; C0700017-07 [I,C*]; C0700017-07 [I,A]; C0700017-07 [I,C*]; C0700017-07 [I,A]; C0700017-07 [I,C*]; C0700017-07 [I,A]; C0700017-07 [I,A]; C0700017-07 [I,A]; C0700017-07 [I,C*]; C0700017-07 [I,A]; C0700017-07 [I,A]; C0700017-07 [I,C*]; C0700017-07 [I,A]; C0700017 [I,A]; C0700017-07 [|
| | ECLA | CO7C205/51; CO7D261/04; CO7D261/08; CO7D261/20;
CO7D413/04+261+213; CO7D413/04+303+261;
CO7D413/04+317+261; CO7D413/04+333B+261;
CO7D413/12+261+257; CO7D417/04+277B+261; CO7F009/653 |
| AU 9519481 | IPCI | C07D0261-04 [ICM,6]; A61K0031-42 [ICS,6]; C07D0261-08 [ICS,6]; C07F0009-653 [ICS,6]; C07F009-00 [ICS,6,C*]; C07D0413-04 [ICS,6]; C07D0413-12 [ICS,6]; C07D0413-00 [ICS,6,C*]; C07D0261-20 [ICS,6]; C07D0261-00 |
| [ICS, 6, C*] | | |
| | IPCR | A61R0031-41 [I,C*]; A61R0031-41 [I,A]; A61R0031-42 [I,C*]; A61R0031-42 [I,A]; A61R0031-42 [I,A]; A61R0031-423 [I,C*]; A61R0031-423 [I,C*]; A61R0031-425 [I,A]; A61R0031-425 [I,A]; A61R0031-535 [I,A]; A61R0031-535 [I,C*]; A61R0031-535 [I,A]; A61R0031-535 [I,C*]; A61R0031-535 [I,C*]; A61R0031-537 [I,A]; A61R0010-00 [I,C*]; A61R0031-00 [I,C*]; A61R0031-00 [I,A]; A61R0037-00 [I,A]; A61R037-00 [I,A]; A61R0037-00 [I,A]; A61R0037-00 [I,A]; A61R0037-00 [I |
| EP 749429 | IPCI | C07D0261-04 [ICM,6]; A61K0031-42 [ICS,6]; C07D0261-08 |

[ICS, 6, C*]

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CN 1143956 IPCI CO7D0261-04 [ICM,6]; A61K0031-42 [ICS,6]; C07D0261-08 [ICS,6]; C07F0009-53 [ICS,6]; C07F0009-00 [ICS,6,C*]; C07D0413-04 [ICS,6]; C07D0413-12 [ICS,6]; C07D0413-00 [ICS,6,C*]; C07D0261-20 [ICS,6]; C07D0261-00

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IPCR A61K0031-41 [1,C*]; A61K0031-42 [1,A]; A61K0031-42 [1,C*]; A61K0031-42 [1,C*]; A61K0031-42 [1,C*]; A61K0031-42 [1,A]; A61K0031-425 [1,C*]; A61K0031-426 [1,A]; A61K0031-426 [1,A]; A61K0031-426 [1,A]; A61K0031-426 [1,A]; A61K0031-535 [1,C*]; A61K0031-535 [1,A]; A61K0031-537 [1,A]; A61F0011-00 [1,C*]; A61K0031-537 [1,A]; A61F0011-00 [1,C*]; A61F0037-00 [1,A]; A61F0037-00 [1,A]; A61F0037-00 [1,A]; A61F0037-00 [1,A]; C0700265-01 [1,A]; C0700261-08 [1,A]; C0700261-08 [1,A]; C0700263-00

C07D0261-04 [ICS,7]; C07D0261-00 [ICS,7,C*]

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HU 76481

| | ECLA | [1,C*]; C07D0263-30 [1,A]; C07D0413-00 [1,C*]; C07D0413-04 [1,A]; C07D0413-12 [1,A]; C07D0417-00 [1,C*]; C07D0417-04 [1,A]; C07F0009-06 [1,C*]; C07F0009-0653 [1,A] C07C0205/51; C07D261/04; C07D261/08; C07D261/20; C07D413/04+2014-213; C07D413/04+3038+261; C07D413/04+317+261; C07D413/04+3138+261; |
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| JP 09509951 | IPCI | C070413/12+261+257; C070417/04+2778+261; C07F009/653
C0700261-04 [ICK,6]; A61K0031-42 [ICS,6]; A61K0031-495
ICS,6]; A61K0031-535 [ICS,6]; C0700261-08 [ICS,6];
C0700261-18 [ICS,6]; C0700261-20 [ICS,6]; C0700261-00
[ICS,6,C*]; C07D0413-04 [ICS,6]; C07D0413-00
ICS,6,C*]; C07F0009-653 [ICS,6]; C07F0009-00 |
| | IPCR | [ICS,6,C*]; CO7M0007-00 [ICS,6] A61K0031-441 [I,C*]; A61K0031-442 [I,A]; A61K0031-42 [I,C*]; A61K0031-423 [I,A]; A61K0031-495 [I,C*]; A61K0031-423 [I,A]; A61K0031-495 [I,C*]; A61K0031-496 [I,A]; A61K0031-535 [I,C*]; A61K0031-535 [I,A]; A61K0031-5375 [I,A]; A61K0031-5377 [I,A]; A61F0011-00 [I,C*]; A61F0011-00 [I,A]; A61F00129-00 [I,C*]; A61F0029-00 [I,A]; C07C0205-00 [I,C*]; C07C0205-51 [I,A]; C07D0261-00 [I,C*]; A61F0037-00 [I,C*]; A61F0037-00 [I,C*]; C07C0205-10 [I,C*]; C07C0205-10 [I,C*]; C07C0205-10 [I,A]; C07C0205-10 [I,A]; C07C0205-10 [I,C*]; C07C0205-10 [I,A]; C07C00117-00 [I,C*]; C07C00117-00 [I,A]; C07C0009-00 [I,C*]; C07C0019-653 [I,A] |
| AT 181733 | IPCI | CO7D0261-04 [ICM,6]; A61K0031-42 [ICS,6]; C07D0261-08 [ICS,6]; C07P009-653 [ICS,6]; C07F0009-00 [ICS,6,¢*1; C07D0413-04 [ICS,6]; C07D0413-12 [ICS,6]; C07D0413-00 [ICS,6,c*1; C07D0413-00 [ICS,6,c*1]; C07D0261-20 [ICS,6]; C07D0261-00 |
| [Ics,6,c*] | IPCR | A61R0031-41 [I,C*]; A61R0031-41 [I,A]; A61R0031-42 [I,C*]; A61R0031-42 [I,A]; A61R0031-42 [I,C*]; A61R0031-423 [I,A]; A61R0031-495 [I,C*]; A61R0031-495 [I,C*]; A61R0031-496 [I,A]; A61R0031-496 [I,A]; A61R0031-535 [I,C*]; A61R0031-535 [I,C*]; A61R0031-535 [I,C*]; A61R0031-5377 [I,A]; A61R0011-00 [I,C*]; A61P0011-00 [I,A]; A61P0011-00 [I,A]; A61P0011-00 [I,A]; A61P0011-00 [I,A]; A61P0011-00 [I,A]; A61P0037-00 [I,C*]; A61P0037-00 [I,A]; A61P0037-00 [I,A]; C0700261-08 [I,A]; C0700261-08 [I,A]; C0700261-08 [I,A]; C0700261-08 [I,A]; C0700261-09 [I,C*]; C0700263-30 [I,A]; C070041-30 [I,C*]; C0700417-00 [I,C*]; C0700417-00 [I,A]; C0700417-00 [I,C*]; C0700417-00 [I,A]; C070009-00 [I,C*]; C0700417-00 [I,A]; C070009-00 [I,C*]; C07000417-00 [I,A]; C070009-00 [I,C*]; C07000417-00 [I,A]; C070009-00 [I,C*]; |
| ES 2135046 | IPCI | C0700261-04 [ICK,6]; A61K0031-42 [ICS,6]; C07D0261-08 [ICS,6]; C07F009-653 [ICS,6]; C07F0009-00 [ICS,6,C*]; C07D0413-04 [ICS,6]; C07D0413-12 [ICS,6]; C07D0413-00 [ICS,6]; C07D0413-00 [ICS,6]; C07D0261-20 [ICS,6]; C07D0261-00 |
| [ICS, 6, C*] | IPCR | A61K0031-41 [I,C*]; A61K0031-41 [I,A]; A61K0031-42 |
| Dags 122 | | |

IPCI IPCR

[I,C*]; A61K0031-42 [I,A]; A61K0031-423 [I,C*]; A61K0031-423 [I.A]; A61K0031-495 [I.C*]; A61K0031-495 [I,A]; A61K0031-496 [I,C*]; A61K0031-496 [I,A]; A61K0031-535 [I,C*]; A61K0031-535 [I,A]; A61K0031-5375 [I,C*]; A61K0031-5377 [I,A]; A61P0011-00 [I,C*]; A61P0011-00 [I,A]; A61P0029-00 [I,C*]; A61P0029-00 [I,A]; A61P0037-00 [I,C*]; A61P0037-00 [I,A]; C07C0205-00 [I,C*]; C07C0205-51 [I,A]; C07D0261-00 [I,C*]; C07D0261-04 [I,A]; C07D0261-08 [I,A]; C07D0261-18 [I,A]; C07D0261-20 [I,A]; C07D0263-00 [I,C*]; C07D0263-30 [I,A]; C07D0413-00 [I,C*]; C07D0413-04 [I,A]; C07D0413-12 [I,A]; C07D0417-00 [I,C*]; C07D0417-04 [I,A]; C07F0009-00 [I,C*]; C07F0009-653 [I.A] C07D [ICM, 6] A61K0031-41 [I,C*]; A61K0031-41 [I,A]; A61K0031-42 [I,C*]; A61K0031-42 [I,A]; A61K0031-423 [I,C*]; A61K0031-423 [I,A]; A61K0031-495 [I,C*]; A61K0031-495 [I,A]; A61K0031-496 [I,C*]; A61K0031-496 [I,A]; A61K0031-535 [I,C*]; A61K0031-535 [I,A]; A61K0031-5375 [I,C*]; A61K0031-5377 [I,A]; A61P0011-00 [I,C*]; A61P0011-00 [I,A]; A61P0029-00 [I,C*]; A61P0029-00 [I,A]; A61P0037-00 [I,C*]; A61P0037-00 [I,A]; C07C0205-00 [I,C*]; C07C0205-51 [I,A]; C07D0261-00 [I,C*]; C07D0261-04 [I,A]; C07D0261-08 [I,A]; C07D0261-18 [I,A]; C07D0261-20 [I,A]; C07D0263-00

[I,C*]; C07D0263-30 [I,A]; C07D0413-00 [I,C*]; C07D0413-04 [I,A]; C07D0413-12 [I,A]; C07D0417-00 [I,C*]; C07D0417-04 [I,A]; C07F0009-00 [I,C*]; C07F0009-653 [I,A]

C07D [ICM, 61

FI 9603508 IPCI IPCR A61K0031-41 [I,C*]; A61K0031-41 [I,A]; A61K0031-42

[I,C*]; A61K0031-42 [I,A]; A61K0031-423 [I,C*]; A61K0031-423 [I,A]; A61K0031-495 [I,C*]; A61K0031-495 [I,A]; A61K0031-496 [I,C*]; A61K0031-496 [I,A]; A61K0031-535 [I,C*]; A61K0031-535 [I,A]; A61K0031-5375 [I,C*]; A61K0031-5377 [I,A]; A61P0011-00 [I,C*]; A61P0011-00 [I,A]; A61P0029-00 [I,C*]; A61P0029-00 [I.A]; A61P0037-00 [I.C*]; A61P0037-00 [I.A]; C07C0205-00 [I,C*]; C07C0205-51 [I,A]; C07D0261-00 [I,C*]; C07D0261-04 [I,A]; C07D0261-08 [I,A]; C07D0261-18 [I,A]; C07D0261-20 [I,A]; C07D0263-00 [I,C*]; C07D0263-30 [I,A]; C07D0413-00 [I,C*]; C07D0413-04 [I,A]; C07D0413-12 [I,A]; C07D0417-00 [I,C*]; C07D0417-04 [I,A]; C07F0009-00 [I,C*];

C07F0009-653 [I.A] US 5814627 IPCI A61K0031-42 [ICM,6]; A61K0031-535 [ICS,6]; C07D0261-04 [ICS, 6]; C07D0261-00 [ICS, 6, C*]; C07D0413-12 [ICS, 6];

C07D0413-00 [ICS,6,C*]

IPCR A61K0031-41 [I,C*]; A61K0031-41 [I,A]; A61K0031-42 [I,C*]; A61K0031-42 [I,A]; A61K0031-423 [I,C*]; A61K0031-423 [I,A]; A61K0031-495 [I,C*]; A61K0031-495 [I,A]; A61K0031-496 [I,C*]; A61K0031-496 [I,A]; A61K0031-535 [I,C*]; A61K0031-535 [I,A]; A61K0031-5375 [I,C*]; A61K0031-5377 [I,A]; A61P0011-00 [I,C*];

NO 9603560

A61P0011-00 [I,A]; A61P0029-00 [I,C*]; A61P0029-00 [I,A]; A61P0037-00 [I,C*]; A61P0037-00 [I,A]; C07C0205-00 [I,C*]; C07C0205-51 [I,A]; C07D0261-00 [I,C*]; C07D0261-04 [I,A]; C07D0261-08 [I,A]; C07D0261-18 [I,A]; C07D0261-20 [I,A]; C07D0263-00 [I,C*]; C07D0263-30 [I,A]; C07D0413-00 [I,C*]; C07D0413-04 [I.A]; C07D0413-12 [I.A]; C07D0417-00 [I,C*]; C07D0417-04 [I,A]; C07F0009-00 [I,C*]; C07F0009-653 [I,A] 514/236.800; 514/378.000; 544/137.000; 544/367.000; 546/272.100; 548/111.000; 548/119.000; 548/205.000; 548/240.000; 548/247.000; 548/248.000 C07C205/51; C07D261/04; C07D261/08; C07D261/20; C07D413/04+261+213; C07D413/04+303+261; C07D413/04+317+261; C07D413/04+333B+261; C07D413/12+261+257; C07D417/04+277B+261; C07F009/653

OS CASREACT 124:86996; MARPAT 124:86996

NCL

ECLA

AB Title compds. [I; 1 of R1,R2 = 4,3,5-HO(Me3C)2C6H2 and the other = pyridyl, thiazolyl, (CH2)nCR5R6(CH2)mZR7, etc.; R3 = H, (hydroxy)alkyl;

= H, alkyl; R2R4 = atoms to form an aliphatic ring.; R5,R6 = H, alkyl,

OH,

Ph, etc.; R7 = H, amino acid residue, CO2H, alkoxycarbonyl, etc.; Z = 0,
NH; dashed line = optional bond when R4 = null; m = 0-4; n = 0-6] were
prepared as non-oyclooxygenase inhibiting antirheumatics. Thus,
4,3,5-HO(Me3C)2C6H2C:NOH (preparation given) was cyclocondensed with
CH2:CHCH(OH)He to give racemic erythro-II which gave 85% inhibition of
adjuvant-induced foot swelling in rats receiving 25mg/kg orally.

SI isoxacoline hydroxyditertbutylpheny prepn antirheumatic

IT Autoimmune disease

(treatment; preparation of 3-(4-hydroxy-3,5-di-tert-butylphenyl)-2isoxazolines as antirheumatics)
(T Bronchodilators

(antiasthmatics, 3-(4-hydroxy-3,5-di-tert-butylphenyl)-2-isoxazolines)
IT Inflammation inhibitors

(antirheumatics, 3-(4-hydroxy-3,5-di-tert-butylphenyl)-2-isoxazolines) 172412-78-1P 172412-79-2P 172412-80-5P 172412-81-6P 172412-82-7P 172412-83-8P 172412-84-9P 172412-85-0P 172412-86-1P 172412-87-2P 172412-88-3P 172412-89-4P 172412-90-7P 172412-91-8P 172412-92-9P

GT

R4

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10/593972 BY Primary Exr. Cynthia Hamilton
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    172413-03-5P 172413-04-6P 172413-05-7P 172413-06-8P 172413-07-9P
    172413-08-0P 172413-09-1P 172413-10-4P 172413-11-5P 172413-12-6P
    172413-13-7P 172413-14-8P 172413-15-9P 172413-16-0P
                                                            172413-17-1P
    172413-18-2P 172413-19-3P 172413-20-6P 172413-21-7P
                                                            172413-23-9P
    172413-24-0P 172413-25-1P 172413-26-2P 172413-27-3P
                                                            172413-28-4P
    172413-29-5P 172413-30-8P 172413-31-9P 172413-32-0P
                                                            172413-33-1P
    172413-34-2P 172413-35-3P 172413-36-4P 172413-37-5P
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    172413-39-7P 172413-40-0P 172413-42-2P 172413-43-3P
                                                            172413-44-4P
    172413-45-5P 172413-46-6P 172413-47-7P 172413-48-8P
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                                                            172584-74-6P
    172584-75-7P 172584-76-8P
                               172584-77-9P 172584-78-0P
                                                            172647-46-0P
    172647-47-1P 172735-62-5P
    RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
    BIOL (Biological study); PREP (Preparation); USES (Uses)
       (preparation of 3-(4-hydroxy-3,5-di-tert-butylphenyl)-2-isoxazolines
       antirheumatics)
    96-33-3 105-36-2, Ethyl bromoacetate 107-18-6, 2-Propen-1-ol,
               112-67-4, Hexadecanovl chloride 459-73-4, Glycine ethyl
    reactions
    ester 598-32-3, 1-Buten-3-ol 930-22-3 1620-98-0
                                                         1663-39-4
    2883-45-6, 1,6-Heptadien-4-ol 2999-46-4, Ethyl isocyanoacetate
    4755-77-5, Ethyl chloroformylformate 6283-74-5 6737-11-7,
1-Buten-3-vl
    acetate
             13679-64-6, 3-Vinylthiophene
                                          13734-34-4, N-tert-
    Butoxycarbonylphenylalanine 13838-77-2, 2-Thiazolecarboxaldehyde oxime
    19781-76-1, 6-Heptene-2,4-diol 39499-34-8, 5-Methylisoxazole-3-carbonyl
    chloride 92136-39-5, N-tert-Butoxycarbonylpropargylamine
    104835-82-7
                 172413-61-5
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (preparation of 3-(4-hydroxy-3,5-di-tert-butylphenyl)-2-isoxazolines
as
       antirheumatics)
ΤТ
    787-13-3P 4185-98-2P 14337-43-0P 19263-36-6P, 2,6-Di-tert-buty1-4-
    vinvlphenol
                110106-95-1P, tert-Butvl 4-nitrobutvrate 172413-41-1P
    172413-54-6P
                 172413-55-7P
                                172413-56-8P 172413-57-9P 172413-58-0P
    172413-59-1P
                 172413-60-4P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
    (Reactant or reagent)
       (preparation of 3-(4-hydroxy-3,5-di-tert-butylphenyl)-2-isoxazolines
as
       antirheumatics)
L18 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
```

- AN 1991:52926 CAPLUS
- DN 114:52926
- OREF 114:8953a,8956a
- ED Entered STN: 09 Feb 1991
- TI Radiation-sensitive mixture containing spiroindolinobenzopyran dye and copying material therefrom
- IN Elsaesser, Andreas; Gaschler, Otfried; Mohr, Dieter
- PA Hoechst A.-G., Germany

```
SO Ger. Offen., 9 pp.
    CODEN: GWXXBX
DT Patent
LA
   German
IC
    ICM G03F007-023
ICA G03F007-16; G03C001-72; G03C001-492; C09B011-00; C09B015-00; C09B017-00;
    C09B019-00; C09B021-00; C09B023-00; C09B057-00
CC
    74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
FAN.CNT 1
    PATENT NO.
                      KIND DATE APPLICATION NO.
                 A1 19900412 DE 1988-3834300
A1 19900408 CA 1989-2000052
A3 19910403 EP 1989-118229
                                                                 19881008
PΤ
    DE 3834300
    CA 2000052
                                                                 19891002
    EP 363776
                                                                  19891002
        R: DE, FR, GB, IT, NL
    BR 8905102 A 19900515 BR 1989-5102
JP 02144538 A 19900604 JP 1989-262843
                                                                  19891006
                                          JP 1989-262843
                                                                  19891007
                        A 19900604
A 19881008
PRAI DE 1988-3834300
CLASS
              CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
                ICM G03F007-023
DE 3834300
                TCA
                       G03F007-16; G03C001-72; G03C001-492; C09B011-00;
                       C09B015-00; C09B017-00; C09B019-00; C09B021-00;
                       C09B023-00; C09B057-00
                 IPCI G03F0007-023 [ICM,5]; G03F0007-16 [ICA,5]; G03C0001-72
                       [ICA, 5]; G03C0001-492 [ICA, 5]; G03C0001-005
[ICA, 5, C*];
                       C09B0011-00 [ICA,5]; C09B0015-00 [ICA,5]; C09B0017-00
                       [ICA,5]; C09B0019-00 [ICA,5]; C09B0021-00 [ICA,5];
                       C09B0023-00 [ICA,5]; C09B0057-00 [ICA,5]
                 IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022
                       [I,C*]; G03F0007-022 [I,A]; G03F0007-09 [I,C*];
                       G03F0007-105 [I,A]; H01L0021-02 [I,C*]; H01L0021-027
 CA 2000052
                IPCI G03C0001-52 [ICM, 5]
                IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022
                       [I,C*]; G03F0007-022 [I,A]; G03F0007-09 [I,C*];
                       G03F0007-105 [I.A]; H01L0021-02 [I.C*]; H01L0021-027
```

IPCI G03F0007-105 [ICM, 5]; G03F0007-09 [ICM, 5, C*]

IPCR G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022
[I,C*]; G03F0007-022 [I,A]; G03F0007-09 [I,C*];
 G03F0007-105 [I,A]; H01L0021-02 [I,C*]; H01L0021-027

[I,C*]; G03F0007-022 [I,A]; G03F0007-09 [I,C*]; G03F0007-105 [I,A]; H01L0021-02 [I,C*]; H01L0021-027

G03F0007-022 [ICM,5]; G03F0007-004 [ICS,5]; H01L0021-027 [ICS,5]; H01L0021-02 [ICS,5,C*] G03F0007-004 [I,C*]; G03F0007-004 [I,A]; G03F0007-022

IPCI G03C0001-52 [ICM, 4]; G03F0007-08 [ICS, 4]

[I, A]

[I.A]

[I, A]

IPCI

IPCR

OS MARPAT 114:52926

EP 363776

BR 8905102

JP 02144538

Radiation-sensitive or photosensitive mixts, and copying materials therefrom are composed of a 1,2-quinonediazide and/or a combination of a compound forming a strong acid under the effects of actinic radiation, a compound containing ≥1 cleavable COC bond, whose solubility in a liquid developer is increased by the effects of an acid; a water-insol., aqueous alkaline

solution-soluble polymer binder; and a spiroindolinobenzopyran dve of the structure I (R = H or C1-16 alkvl; R1-R4 = H, halogen, C1-4 alkvl, C1-4 alkoxy, OH, or NO2; R5-R8 = H, halogen, NO2, NH2, C1-5 alkoxy, C1-5 hydroxyalkyl, or C6-10 aryl). Thus, a roughened, anodized, and hydrophilized Al foil was coated with a composition containing a 2,3,4-trihydroxybenzophenone tris(7,2-naphthoquinone-2-diazide-5-

sulfonate, a m-cresol-HCHO novolak,

2,6-bis(hydroxymethyl)-4-methylphenol,

2-(4-styrylphenyl)-4,6-bis(trichloromethyl)-s-triazine, and 5'-chloro-1',3',3'-trimethyl-6-nitro-8-methoxyspiro[2H-1-benzopyran-2,2'indoline], imagewise exposed, and developed to give excellent image contrast and excellent thermal stability.

- ST photosensitive compn copying spiroindolinobenzopyran
- ΙT Photoimaging compositions and processes

(containing spiroindolinobenzopyran dye for high image contrast and

thermal stability)

- Printing plates
 - (photosensitive compns. containing spiroindolinobenzopyran dve for fabrication of, for high image contrast and thermal stability)
- ΙT Phenolic resins, uses and miscellaneous RL: USES (Uses)
- (novolak, photosensitive compns. containing spiroindolinobenzopyran
- and, for high image contrast and thermal stability)
- 25086-36-6
 - RL: USES (Uses)

(novolak, photosensitive compns. containing spiroindolinobenzopyran

- dye and, for high image contrast and thermal stability)
- ΙT 52125-43-6 91-04-3, 2,6-Bis(hydroxymethyl)-4-methylphenol 84522-08-7 97802-84-1, 2-(4-Styrylphenyl)-4,6-bis(trichloromethyl)-s-120504-14-5 triazine RL: USES (Uses)

(photosensitive compns. containing spiroindolinobenzopyran and, for high

image contrast and thermal stability)

IT 24979-71-3 122144-21-2 131272-40-7

RL: USES (Uses)

(photosensitive compns. containing spiroindolinobenzopyran dye and,

for

high image contrast and thermal stability)

IT 1498-88-0 1498-89-1 14994-04-8

RL: USES (Uses)

(photosensitive compns. containing, for high image contrast and thermal $\ensuremath{\mathsf{I}}$

stability)

- L18 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
 - N 1976:32053 CAPLUS
- DN 84:32053
- OREF 84:5249a,5252a
- ED Entered STN: 12 May 1984
- TI Highly heat-stable composition from ring-opening polymerization product IN Kokuryo, Shiro; Kawahara, Hiroyasu; Akiyama, Hiroshi; Kawasaki, Ueshima;
- Tsuge, Chutatsu PA Showa Denko K. K., Japan
- 50 Ger. Offen., 144 pp.
- CODEN: GWXXBX
- LA German
- IC COST
- CC 36-6 (Plastics Manufacture and Processing)

FAN.CNT 1

| | PATENT NO. | | DATE | APPLICATION NO. | | | |
|------|--|----------|----------------------------------|-----------------|----------|--|--|
| PI | DE 2518055
DE 2518055
DE 2518055 | A1
B2 | 19751030
19810619
19820527 | DE 1975-2518055 | 19750423 | | |
| | JP 50138050 | A | 19751104 | JP 1974-45051 | 19740423 | | |
| | JP 51006251 | A | 19760119 | JP 1974-76468 | 19740705 | | |
| | JP 51056860 | A | 19760518 | JP 1974-130502 | 19741114 | | |
| | JP 51057756 | A | 19760520 | JP 1974-131159 | 19741115 | | |
| | | | 19760528 | JP 1974-135228 | 19741126 | | |
| | JP 51064563 | A | 19760604 | JP 1974-137692 | 19741203 | | |
| | US 3991139 | A | 19761109 | US 1975-570425 | 19750422 | | |
| | GB 1503703 | A | 19780315 | GB 1975-16587 | 19750422 | | |
| | CA 1043494 | A1 | 19781128 | CA 1975-225423 | 19750422 | | |
| | FR 2366329 | A1 | 19780428 | FR 1975-12675 | 19750423 | | |
| | FR 2366329 | B1 | 19831007 | | | | |
| | FR 2283175 | A1 | 19760326 | FR 1975-36333 | 19751127 | | |
| | FR 2283175 | B1 | 19821008 | | | | |
| | FR 2283176 | | 19760326 | FR 1975-36334 | 19751127 | | |
| | FR 2283176 | B1 | 19821008 | | | | |
| PRAI | JP 1974-45051 | A | 19740423 | | | | |
| | JP 1974-76468 | | | | | | |
| | JP 1974-130502 | A | 19741114 | | | | |
| | JP 1974-131159 | A | 19741115 | | | | |
| | JP 1974-135228 | A | 19741126 | | | | |
| | JP 1974-137692 | A | 19741203 | | | | |
| CLAS | S | | | | | | |

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|-------------|--------------------|---|
| DE 2518055 | IC
IPCI
IPCR | C08L
C08L0045-00
C08K0005-00 [I,C*]; C08K0005-00 [I,A] |
| JP 50138050 | IPCI
IPCR | C08L0065-00; C08K0005-13; C08K0005-00 [C*] C08L0001-00 [1,C*]; C08L0001-00 [1,A]; C08L0007-00 [1,C*]; C08L0007-00 [1,A]; C08L0021-00 [1,C*]; C08L0021-00 [1,A]; C08L0023-00 [1,C*]; C08L0023-00 [1,A]; C08L0027-00 [1,C*]; C08L0027-00 [1,A]; C08L0033-00 [1,C*]; C08L0033-00 [1,A]; C08L0033-02 [1,A]; C08L0051-00 [1,C*]; C08L0051-00 [1,A]; C08L0051-02 [1,A]; C08L0065-00 [1,C*]; C08L0065-00 [1,A]; |
| JP 51006251 | IPCI
IPCR | COBLO05-00; COBKO005-13; COBKO005-00 [C*] COBLO05-00 [I,C*]; COBLO05-00 [I,A]; COBKO005-00 [I,C*]; COBKO05-13 [I,A]; COBLO001-00 [I,C*]; COBLO001-00 [I,A]; COBLO007-00 [I,C*]; COBLO007-00 [I,A]; COBLO021-00 [I,C*]; COBLO021-00 [I,A]; COBLO027-00 [I,C*]; COBLO027-00 [I,A]; COBLO033-00 [I,C*]; COBLO033-00 [I,A]; COBLO033-02 [I,A]; COBLO051-00 [I,C*]; COBLO027-00 [I,A]; COBLO033-00 [I,C*]; COBLO033-00 [I,A]; COBLO031-00 [I,A]; COBLO051-00 [I,C*]; COBLO051-00 [I,A]; COBLO051-00 [I,A]; COBLO0101-00 [I,C*]; COBLO01-00 [I,A]; COBLO01-00 [I,A]; COBLO0101-00 |
| JP 51056860 | IPCI
IPCR | COBLO065-00; COBKO005-36; COBKO005-00 [C*] COBLO065-00 [I,C*]; COBLO065-00 [I,A]; COBKO005-00 [I,C*]; COBKO005-36 [I,A]; COBLO001-00 [I,C*]; COBLO001-00 [I,A]; COBLO007-00 [I,C*]; COBLO007-00 [I,A]; COBLO021-00 [I,C*]; COBLO021-00 [I,A]; COBLO027-00 [I,C*]; COBLO023-00 [I,A]; COBLO033-00 [I,A]; COBLO027-00 [I,C*]; COBLO033-00 [I,A]; COBLO033-00 [I,C*]; COBLO033-00 [I,A]; COBLO033-02 [I,A]; COBLO051-00 [I,C*]; COBLO051-00 [I,A]; COBLO051-00 [I,A]; COBLO051-00 [I,C*]; COBLO01-00 [I,A]; COBLO051-00 [I,A]; COBLO01-00 [I,C*]; COBLO01-00 [I,A]; COBLO01-00 |
| JP 51057756 | IPCI
IPCR | C08L0065-00; C08K0005-13; C08K0005-00 [C*] C08K0005-00 [I,C*]; C08K0005-13 [I,A]; C08L0065-00 II,C*]; C08L0065-00 II,A] |
| JP 51061556 | IPCI
IPCR | COBLO065-00; COBKOO05-20; COBKOO05-00 [C*] COBLO065-00 I,C*]; COBKOO05-00 I,A]; COBKOO05-00 I,C*]; COBKOO05-20 I,A]; COBLOO01-00 I,C*]; COBLOO1-00 I,A]; COBLOO1-00 I,A]; COBLOO1-00 I,A]; COBLOO1-00 I,A]; COBLOO1-00 I,A]; COBLOO23-00 I,A]; COBLOO23-00 I,A]; COBLOO27-00 I,C*]; COBLOO27-00 I,A]; COBLOO33-00 I,A]; COBLOO33-00 I,A]; COBLOO33-00 I,A]; COBLOO51-00 I,C*]; COBLOO1-00 I,A]; COBLOO1-00 I,A]; COBLOO1-00 I,A]; COBLOO1-00 I,A]; COBLOO1-00 I,C*]; COBLOO1-00 I,A]; COBLOO1-00 I,A]; COBLOO1-00 I,C*]; COBLOO1-00 I,A]; COBLOO1-00 |
| JP 51064563 | IPCI
IPCR | C08L0065-00; C08K0005-13; C08K0005-36; C08K0005-37; C08K0005-51; C08K0005-00 [C*] C08L0065-00 [I,C*]; C08L0065-00 [I,C*]; C08L0065-00 [I,C*]; C08K0005-13 [I,A]; C08K0005-36 [I,A]; C08K0005-37 [I,A]; C08K0005-51 [I,A]; C08K0005-00 |

```
[I,C*]; C08L0001-00 [I,A]; C08L0007-00 [I,C*];
                       C08L0007-00 [I,A]; C08L0021-00 [I,C*]; C08L0021-00
                       [I,A]; C08L0023-00 [I,C*]; C08L0023-00 [I,A];
                       C08L0027-00 [I,C*]; C08L0027-00 [I,A]; C08L0033-00
                       [I,C*]; C08L0033-00 [I,A]; C08L0033-02 [I,A];
                       C08L0051-00 [I,C*]; C08L0051-00 [I,A]; C08L0051-02
                       [I,A]; C08L0077-00 [I,C*]; C08L0077-00 [I,A];
                       C08L0101-00 [I,C*]; C08L0101-00 [I,A]
US 3991139
                IPCI
                       C08K0005-53; C08K0005-36; C08K0005-20; C08K0005-13;
                       C08K0005-00 [C*]
                TPCR
                       C08L0001-00 [I,C*]; C08L0001-00 [I,A]; C08L0007-00
                       [I,C*]; C08L0007-00 [I,A]; C08L0021-00 [I,C*];
                       C08L0021-00 [I,A]; C08L0023-00 [I,C*]; C08L0023-00
                       [I,A]; C08L0027-00 [I,C*]; C08L0027-00 [I,A];
                       C08L0033-00 [I,C*]; C08L0033-00 [I,A]; C08L0033-02
                       [I,A]; C08L0051-00 [I,C*]; C08L0051-00 [I,A];
                       C08L0051-02 [I,A]; C08L0065-00 [I,C*]; C08L0065-00
                        [I,A]; C08L0101-00 [I,C*]; C08L0101-00 [I,A]
                NCL
                       524/151.000; 524/120.000; 524/147.000; 524/153.000;
                       524/171.000; 524/222.000; 524/289.000; 524/291.000;
                       524/303.000; 524/304.000; 524/305.000; 524/332.000;
                       524/343.000; 524/553.000; 526/281.000
GB 1503703
                TPCT
                       C08K0005-36; C08L0045-00; C08K0005-13; C08K0005-06;
                       C08K0005-07; C08K0005-10; C08K0005-20; C08K0005-00
[C*]
                IPCR
                       C08K0005-00 [I,C*]; C08K0005-00 [I,A]
CA 1043494
                IPCI
                       C08K0005-13; C08K0005-20; C08K0005-36; C08K0005-00
[C*]
                       C08K0005-00 [I,C*]; C08K0005-00 [I.A]
                IPCR
                IPCI
FR 2366329
                       C08L0045-00; C08K0005-13; C08K0005-00 [C*]
                IPCR
                       C08K0005-00 [I,C*]; C08K0005-00 [I,A]
FR 2283175
                IPCI
                       C08L0045-00; C08K0005-13; C08K0005-00 [C*]
                FR 2283176
                IPCI
                       C08L0045-00; C08K0005-13; C08K0005-00 [C*]
                IPCR
                       C08K0005-00 [I,C*]; C08K0005-00 [I,A]
    Phenols, thioethers, and/or phosphites (32) were used as heat stabilizers
    for polymers (22) prepared by ring-opening polymerization of
bicvclo[2.2.1]heptenes
    such as 5-cyanobicyclo[2.2.1]hept-2-ene (I). Thus, I polymer
[30811-49-5]
    containing 3% 2,6-di-tert-butyl-p-cresol [128-37-0] was yellow after 15
min at
     220° in air, compared with vellow-brown for unstabilized I polymer.
    heat stabilizer bicvcloheptene polymer; phenol stabilizer bicvcloheptene
    polymer; thioether stabilizer bicycloheptene polymer; phosphite
stabilizer
    bicycloheptene polymer; norbornene deriv polymer stabilizer
    Rubber, butadiene-styrene, uses and miscellaneous
        (heat stabilizers for bicycloheptene polymers containing)
    Phenols, uses and miscellaneous
    Sulfides, uses and miscellaneous
    RL: MOA (Modifier or additive use); USES (Uses)
        (heat stabilizers, for bicycloheptene polymers)
    Heat stabilizers
        (phenols and phosphites and thioethers, for bicycloheptene polymers)
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```
IT 9002-86-2 25053-09-2
    RL: USES (Uses)
       (blends with bicycloheptene polymers, heat stabilizers for)
   26935-85-3 26936-09-4 27176-60-9 30421-40-0 30811-49-5
    31513-41-4 51243-63-1 51252-30-3 51252-33-6 55636-70-9
    55738-35-7 55738-39-1 56663-05-9 57863-31-7 57863-32-8
    57863-33-9 57863-34-0 57863-35-1 57863-37-3 57863-38-4
    57863-39-5 57863-41-9
    RL: USES (Uses)
       (heat stabilizers for)
    10361-12-3 10446-37-4 13560-55-9 13560-56-0 13579-30-1
    16545-54-3 16857-10-6 26523-78-4 27325-60-6 29492-50-0
    31151-27-6 57863-94-2 57863-95-3 57863-96-4 57863-97-5
    57863-98-6
               57863-99-7
    RL: MOA (Modifier or additive use); USES (Uses)
       (heat stabilizers, for bicycloheptene polymers)
    9003-55-8
       (rubber, butadiene-styrene; heat stabilizers for bicycloheptene
       polymers containing)
L18 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
    1970:456976 CAPLUS
    73:56976
DN
OREF 73:9355a,9358a
ED Entered STN: 12 May 1984
TI Modified rubber
IN Hiroshima, Junichi; Makino, Kenjiro
PA Asahi Organic Chemicals Industry Co., Ltd.
SO Jpn. Tokkvo Koho, 3 pp.
    CODEN: JAXXAD
DT Patent
LA Japanese
INCL 26D21
CC
   38 (Elastomers, Including Natural Rubber)
FAN. CNT 1
                    KIND DATE APPLICATION NO.
    PATENT NO.
                           -----
                      ----
PI JP 45008426
                      B4 19700326 JP
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
              INCL 26D21
JP 45008426
   (Acrylamidomethyl)phenol (I) is grafted onto isoprene or natural rubber
    (II) with a radical initiator. Thus, a mixture of II 1500, I 643, Bz202
    21.4, and azobisisobutyronitrile 21.4 g was milled at 15-50°, and
    heated at 80-90° for 10 hr to give the rubber.
    acrylamidomethylphenol graft rubber; graft rubber acrylamidomethylphenol;
    isoprene acrylamidomethylphenol graft
   Rubber, preparation
       ((acrylamidomethyl)phenol-grafted)
    Polymerization
       (graft, of (acrylamidomethyl)phenol on rubber)
ΤТ
    23281-77-8
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RL: USES (Uses)
       (polymers with rubber, graft)
L18 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
   1969:67894 CAPLUS
DN 70:67894
OREF 70:12669a,12672a
ED Entered STN: 12 May 1984
TI Preparation of phenols having unsaturated residue
IN Hiroshima, Junichi; Makino, Kenjiro; Takagi, Mikio
PA Asahi Yukizai Kogyo Co., Ltd.
SO Jpn. Tokkyo Koho, 2 pp.
    CODEN: JAXXAD
DT Patent
LA Japanese
INCL 16C412
   25 (Noncondensed Aromatic Compounds)
FAN.CNT 1
    PATENT NO. KIND DATE APPLICATION NO.

JP 43019535 P4 2000000
    PATENT NO.
                                        -----
                             19680823 JP
    JP 43019535
                       B4
                                                              19650911
CLASS
 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
JP 43019535 INCL
                     16C412
AB The title compds. such as acrylamidomethyl-phenol or
    methacrylamidomethylphenol, are prepared by condensation of
    N-methylolacrylamide or N-methylolmethacrylamide with phenols. Thus, a
    mixture of 575.5 g. phenol, 765.5 g. N-methylolacrylamide, and 13.4 g.
    p-toluenesulfonic acid was heated 3 hrs. at 90-100°, washed 4 times
    with 1 1 H2O, boiled with 10 1. H2O to remove phenol, and dried in vacuo
    to give 88% 1:1 0- and p-substituted phenols, accompanied by a trace of
    0,0- or 0,p-disubstituted phenol.
   phenols acrylamidomethyl
IT 23281-76-7P 23281-77-8P
    RL: SPN (Synthetic preparation); PREP (Preparation)
       (preparation of)
L18 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
   1966:491493 CAPLUS
DN
   65:91493
OREF 65:17151e-h
ED Entered STN: 22 Apr 2001
TI Phenolic stabilizers for polymers
PA Farbenfabriken Bayer A.-G.
SO 9 pp.
DT Patent
LA
   Unavailable
    C07C
   48 (Plastics Technology)
FAN.CNT 1
                  KIND DATE APPLICATION NO. DATE
    PATENT NO.
PI NL 6515965
                             19660609 NL 1965-15965 19651208
PRAI DE
                             19641208
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CLASS

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CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
NL 6515965
                IC.
                       C07C
                 IPCI C07C
                 For diagram(s), see printed CA Issue.
AB
    Substituted phenols of the general formula I, where R is H or Me and R'
is
     Et, iso-Pr, or tert-Bu, were prepared for use as stabilizers for
polymers.
     2,6-tert-Bu2C6H3OH 206, CH2:CMeCONHCH2OMe (II) 129, p-MeC6H4SO3H (III) 1,
     and phenothiazine (IV) 0.1 g. heated under CO2 at 150-70° with the
     overhead removal of 32 g. MeOH yielded 225 g. I (R = Me, R' = tert-Bu)
     (V), m. 113° (petroleum ether). Latex (28.7%) (4880 g.) of a graft
     copolymer of 36 parts styrene and 14 parts CH2: CHCN (VI) on 50 parts
     polybutadiene mixed with 6000 g. 43.4% latex of a copolymer of 70 parts
     styrene and 30 parts VI (K value 60.3, intrinsic viscosity 0.71-0.80)
     treated with stirring with 100 g. emulsion of V containing 20% H2O (5% of
     total polymer), coagulated with 2% AcOH, washed, and dried at
     70-80°, a 100-g, portion of the stabilized polymer mixture mixed at
     160° with 2 weight-% com. lubricant, granulated, and formed by injection-molding into plates at 200° gave materials of very good
     heat stability. 2,5-Et2C6H3OH (VII) (150.0 g.), 129.0 g. II, 1.0 g. III,
     and 0.1 g. IV gave similarly, with the elimination of 21 g. MeOH, 220 g.
     (R = Me, R' = Et), m. 118° (EtOAc). VII (150.0 g.), 115.0 g.
     CH2:CHCONHCH2OMe, 1.0 g. III, and 0.1 g. IV heated at 105-70° with
     removal of 28 g. MeOH vielded 130 g. I (R = H, R' = Et), m. 137°
     (EtOAc). 2,6-iso-Pr2C6H3OH (178.0 g.), 129.0 g. II, 1.0 g. III, and 0.1
     g. IV gave similarly at 100-30° (28 g. MeOH eliminated) 250 g.
     yellow, viscous I (R = Me, R' = iso-Pr). 2,6-tert-Bu2C6H3OH (206 g.) in
     200 cc. o-C6H4Cl2, 129 g. II, and 1 g. III heated at 100-10° with
     removal of MeOH gave 220 g. V, m. 113°. Latex of graft-polymer and
     copolymer mixts. stabilized with I yielded, upon injection molding,
     products with very good heat stability.
    Polvoxvmethvlenes
        (stabilization of, by esterification of terminal OH groups with
        α-substituted vinyl esters)
ΙT
     2206-94-2
        (Derived from data in the 7th Collective Formula Index (1962-1966))
IT
     9003-17-2, 1,3-Butadiene, homopolymer
        (acrylonitrile-styrene graft polymers on, stabilizers for,
        N-(3,5-diethyl-4-hydroxybenzyl)acrylamide and related compds. as)
     13560-54-8, Acrylamide, N-(3,5-di-tert-butyl-4-hydroxybenzyl)-2-methyl-
     13560-55-9, Acrylamide, N-(3,5-diethyl-4-hydroxybenzyl)-
     13560-56-0, Acrylamide, N-(3,5-diethyl-4-hydroxybenzyl)-2-methyl-
        (as stabilizer for acrylonitrile-styrene graft polymers on
        1,3-butadiene polymers)
     9003-54-7, Styrene, polymer with acrylonitrile
        (grafted on 1,3-butadiene polymers, stabilizers for,
        N-(3,5-diethyl-4-hydroxybenzyl)acrylamide and related compds. as)
     106677-58-1, Acrylonitrile, polymer with butadiene and styrene, graft
        (stabilizers for, N-(3,5-diethyl-4-hydroxybenzyl)acrylamide and
related
```

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10/593972 BY Primary Exr. Cynthia Hamilton
```

compds. as)

=> d his

(FILE 'HOME' ENTERED AT 17:01:43 ON 09 SEP 2008)

FILE 'REGISTRY' ENTERED AT 17:01:55 ON 09 SEP 2008

L1 4064 S C11H13NO2/MF

L2 5 S L1 AND ACRYLAMIDE

L3 0 S HYDROXYBENZYLACRYLAMIDE

L4 26 S HYDROXYBENZYL AND ACRYLAMIDE

L5 24 S L4 NOT CHLORO L6 15 S L5 NOT TERT

L6 15 S L5 NOT TERT L7 0 S 13560-55-9/CRN

FILE 'CAPLUS' ENTERED AT 17:04:50 ON 09 SEP 2008

L8 13 S L6

L9 4 S L8 AND PHOTO?

FILE 'REGISTRY' ENTERED AT 17:05:50 ON 09 SEP 2008

L10 1 S 13560-56-0

L11 1 S 23281-77-8 L12 1 S 849686-90-4

L13 1 S 104835-82-7

L14 16 S 104835-82-7/CRN

L15 0 S 849686-90-4/CRN

L16 2 S 23281-77-8/CRN

FILE 'CAPLUS' ENTERED AT 17:09:35 ON 09 SEP 2008

L17 16 S L10 OR L11 OR L12 OR L13 OR L14 OR L16 L18 14 S L17 NOT L9

=> file reg

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST

ENTRY SESSION 47.22 160.70

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL ENTRY SESSION -11.20 -14.40

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STRUCTURE FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1
DICTIONARY FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> s c12h15no2/mf

L19 4952 C12H15NO2/MF

=> s 119 and acrylamide 18439 ACRYLAMIDE

L20 5 L19 AND ACRYLAMIDE

=> d 1-5

L20 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN

RN 208943-39-9 REGISTRY

ED Entered STN: 23 Jul 1998

CN 2-Propenamide, 3-[3-(hydroxymethyl)phenyl]-N,N-dimethyl-, (2E)- (CA INDEX

NAME)

OTHER NAMES: CN (E)-3-(3-Hydroxymethylphenyl)-N, N-dimethylacrylamide

FS STEREOSEARCH

MF C12 H15 N O2

SR CA

LC STN Files: CA, CAPLUS, CASREACT

Double bond geometry as shown.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L20 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN

RN 91640-39-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenamide, 2-methyl-N-[(phenylmethoxy)methyl]- (CA INDEX NAME)

10/593972 BY Primary Exr. Cynthia Hamilton OTHER CA INDEX NAMES: CN Acrylamide, N-[(benzyloxy)methyl]-2-methyl- (7CI) MF C12 H15 N O2 CI COM LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS (*File contains numerically searchable property data) H₂C O Me-C-C-NH-CH2-O-CH2-Ph **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT** 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967) L20 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN RN 23980-89-4 REGISTRY ED Entered STN: 16 Nov 1984 CN Acrylamide, N-benzyl-3-ethoxy- (8CI) (CA INDEX NAME) MF C12 H15 N O2 LC STN Files: BEILSTEIN*, CA, CAPLUS (*File contains numerically searchable property data) 0 Ph-CH2-NH-C-CH-CH-OEt **PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT** 1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE) L20 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN RN 14800-18-1 REGISTRY ED Entered STN: 16 Nov 1984 CN 2-Propenamide, N-[(2-hydroxy-3,5-dimethylphenyl)methyl]- (CA INDEX NAME)

BEILSTEIN*, CA, CAPLUS, CASREACT, IFICDB, IFIPAT, IFIUDB,

(*File contains numerically searchable property data)

Page 147

CN

MF

LC

OTHER CA INDEX NAMES:

C12 H15 N O2

USPATFULL

STN Files:

Acrylamide, N-(3,5-dimethylsalicyl)- (8CI)

$$\begin{array}{c} \text{Me} \\ \text{CH}_2-\text{NH-C-CH} \\ \text{OH} \\ \text{Me} \end{array}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L20 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN

RN 13579-23-2 REGISTRY

ED Entered STN: 16 Nov 1984

CN 2-Propenamide, N-[(4-hydroxy-3,5-dimethylphenyl)methyl]- (CA INDEX NAME) OTHER CA INDEX NAMES:

CN Acrylamide, N-(4-hydroxy-3,5-dimethylbenzyl)- (8CI)

OTHER NAMES:

CN 4-Acrylamidomethyl-2,6-dimethylphenol

DR 845725-91-9

MF C12 H15 N O2

CI COM LC SIN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, IFICDB, IFIPAT, IFIUDB, USPATFULL, USPATOLD

(*File contains numerically searchable property data)

$$\begin{array}{c} \text{Me} \\ \text{CH}_2-\text{NH}-\text{C}-\text{CH} = \text{CH}_2 \\ \text{HO} \\ \text{Ne} \end{array}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

28 REFERENCES IN FILE CA (1907 TO DATE)

28 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 13579-23-2 or 14800-18-1 1 13579-23-2 (13579-23-2/RN) 1 14800-18-1 (14800-18-1/RN)

L21 2 13579-23-2 OR 14800-18-1

=> s 13579-23-2/crn or 14800-18-1/crn

16 13579-23-2/CRN 0 14800-18-1/CRN

L22 16 13579-23-2/CRN OR 14800-18-1/CRN

=> file caplus]

'CAPLUS!' IS NOT A VALID FILE NAME

SESSION CONTINUES IN FILE 'REGISTRY'

Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files that are available. If you have requested multiple files, you can specify a corrected file name or you can enter "IGNORE" to continue accessing the remaining file names entered.

=> file caplus

| COST IN U.S. DOLLARS | SINCE FILE
ENTRY | TOTAL
SESSION |
|--|---------------------|------------------|
| FULL ESTIMATED COST | 21.68 | 182.38 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE
ENTRY | TOTAL
SESSION |
| CA SUBSCRIBER PRICE | 0.00 | -14.40 |

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FILE COVERS 1907 - 9 Sep 2008 VOL 149 ISS 11 FILE LAST UPDATED: 8 Sep 2008 (20080908/ED)

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http://www.cas.org/legal/infopolicy.html

=> s 121 or 122 28 L21 7 L22 L23 34 L21 OR L22

=> d his (FILE 'HOME' ENTERED AT 17:01:43 ON 09 SEP 2008) FILE 'REGISTRY' ENTERED AT 17:01:55 ON 09 SEP 2008 4064 S C11H13NO2/MF L2 5 S L1 AND ACRYLAMIDE L3 0 S HYDROXYBENZYLACRYLAMIDE L426 S HYDROXYBENZYL AND ACRYLAMIDE L5 24 S L4 NOT CHLORO L6 15 S L5 NOT TERT L7 0 S 13560-55-9/CRN FILE 'CAPLUS' ENTERED AT 17:04:50 ON 09 SEP 2008 L8 13 S L6 L9 4 S L8 AND PHOTO? FILE 'REGISTRY' ENTERED AT 17:05:50 ON 09 SEP 2008 1 S 13560-56-0 L10 L11 1 S 23281-77-8 L12 1 S 849686-90-4 L13 1 S 104835-82-7 T.14 16 S 104835-82-7/CRN L15 0 S 849686-90-4/CRN L16 2 S 23281-77-8/CRN FILE 'CAPLUS' ENTERED AT 17:09:35 ON 09 SEP 2008 L17 16 S L10 OR L11 OR L12 OR L13 OR L14 OR L16 14 S L17 NOT L9 L18 FILE 'REGISTRY' ENTERED AT 17:11:07 ON 09 SEP 2008 L19 4952 S C12H15NO2/MF 5 S L19 AND ACRYLAMIDE L20 L21 2 S 13579-23-2 OR 14800-18-1 L22 16 S 13579-23-2/CRN OR 14800-18-1/CRN FILE 'CAPLUS' ENTERED AT 17:13:10 ON 09 SEP 2008 L23 34 S L21 OR L22 => s 123 not 19 not 122 7 L22 1.24 26 L23 NOT L9 NOT L22 => s 126 and photo? L26 NOT FOUND The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>). => s 124 and photo? 1604210 PHOTO? 0 L24 AND PHOTO?

Page 150

=> s 126 and negativ? L26 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s 124 and negativ? 101462 NEGATIV?

L26 0 L24 AND NEGATIV?

=> s 124 and polymeriz? 410008 POLYMERIZ?

9 L24 AND POLYMERIZ?

=> d all 1-9

L27 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1998:186505 CAPLUS

DN 128:205506

OREF 128:40649a,40652a Entered STN: 30 Mar 1998

Polyvinyl graft polymers and manufacturing method thereof IN Tamai, Kazuhiko; Yonezawa, Kazuya

Kanegafuchi Kagaku Kogyo K. K., Japan

U.S., 4 pp., Cont.-in-part of U.S. Ser. No. 227,096, abandoned.

CODEN: USXXAM

DT Patent

LA English

ICM C08F024-00

ICS C08F269-00; C08F020-18; C08F020-42; C08F012-08; C08F016-14

INCL 526273000 CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 35

| FAN.C | NI Z
PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------|--------------------|------|----------|-----------------|----------|
| | PAIENI NO. | KIND | DAIL | APPLICATION NO. | DAIL |
| | | | | | |
| PI 1 | US 5728791 | A | 19980317 | US 1995-557329 | 19951114 |
| | JP 04202513 | A | 19920723 | JP 1990-339940 | 19901130 |
| | JP 1990-339940 | A | 19901130 | | |
| 1 | US 1992-915823 | B1 | 19920728 | | |
| 1 | US 1994-227096 | B2 | 19940413 | | |

| CLASS | | |
|-------------|-------|---|
| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
| | | |
| US 5728791 | ICM | C08F024-00 |
| | ICS | C08F269-00; C08F020-18; C08F020-42; C08F012-08; |
| | | C08F016-14 |
| | INCL | 526273000 |
| | IPCI | C08F0024-00 [ICM,6]; C08F0269-00 [ICS,6]; C08F0020-18 |
| | | [ICS,6]; C08F0020-42 [ICS,6]; C08F0020-00 [ICS,6,C*]; |
| | | C08F0012-08 [ICS,6]; C08F0012-00 [ICS,6,C*]; |
| | | C08F0016-14 [ICS,6]; C08F0016-00 [ICS,6,C*] |
| | IPCR | C08F0291-00 [I,C*]; C08F0291-00 [I,A] |
| | NCL | 526/273.000; 525/286.000; 526/320.000; 526/328.000; |
| | IVCL | 526/332.000; 526/341.000; 526/346.000 |
| | 207.2 | |
| | ECLA | C08F291/00+220/58 |
| JP 04202513 | IPCI | C08F0212-08 [ICM,5]; C08F0212-00 [ICM,5,C*]; |
| | | C08F0220-12 [ICS,5]; C08F0220-58 [ICS,5]; C08F0220-00 |

[ICS, 5, C*] IPCR C08F0212-08 [I,A]; C08F0020-00 [I,C*]; C08F0020-52 [I,A]; C08F0020-58 [I,A]; C08F0212-00 [I,C*]; C08F0212-00 [I,A]; C08F0220-00 [I,C*]; C08F0220-10 [I,A]; C08F0220-12 [I,A]; C08F0220-58 [I,A]

The graft polymer bearing the group of CH2CR(CONHCH2Z) (R = H, Me; Z = C6-23 aromatic hydrocarbyl containing ≥1 glycidyloxy group) is prepared

The

graft polymer is excellent not only in mech. properties and heat resistance, but also in adhesiveness, paintability, dyeability and antistatic property. Thus, extruding a mixture of polystyrene 100, N-[4-(2,3-epoxypropoxy)-3,5-dimethylphenyl]acrylamide 10, and α,α'-bis(tert-butylperoxy-m-isopropyl)benzene 0.1 part gave a graft polymer.

polystyrene glycidyloxyphenyl acrylamide graft polymer; epoxy contg

polymethyl methacrylate graft polymer IT

Polymers, preparation RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(graft, epoxy group-containing; manufacture of epoxy-containing polyvinyl graft

polymers and blends)

Polymerization

(graft; manufacture of epoxy-containing polyvinyl graft polymers and blends)

Polymer blend compatibilizers

(manufacture of epoxy-containing polyvinyl graft polymers and blends) тт

Polyesters, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (manufacture of epoxy-containing polyvinyl graft polymers and blends)

Polymer blends

RL: PRP (Properties) (manufacture of epoxy-containing polyvinyl graft polymers and blends)

203937-56-8P 203937-57-9P RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

(Properties); PREP (Preparation); USES (Uses) (manufacture of epoxy-containing polyvinyl graft polymers and blends)

105597-20-4P RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT

(Reactant or reagent)

(manufacture of epoxy-containing polyvinyl graft polymers and blends) 25038-59-9, PET polvester, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (manufacture of epoxy-containing polyvinyl graft polymers and blends)

ΙT 106-89-8, Epichlorohydrin, reactions 13579-23-2, 4-Acrylamidomethyl-2,6-dimethyl phenol

RL: RCT (Reactant); RACT (Reactant or reagent)

(manufacture of epoxy-containing polyvinyl graft polymers and blends) THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

- (1) Anon; JP 61-148215 1986 CAPLUS
- (2) Anon; JP 61-227 1986 CAPLUS
- (3) Anon; JP 63-037109 1988
- (4) Anon; JP 63-37109 1988

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10/593972 BY Primary Exr. Cynthia Hamilton
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- (5) Deguchi; US 5294673 1994 CAPLUS
- (6) Kobayashi: US 5166273 1992 CAPLUS
- (7) Ueki; US 5349027 1994 CAPLUS
- L27 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
- AN 1997:618917 CAPLUS
- DN 127:279066
- OREF 127:54503a,54506a
- ED Entered STN: 27 Sep 1997
- TI Poly(ethylene terephthalate)-based polyester compositions with improved mechanical strength and moisture-heat resistance
- IN Matsumoto, Kazuaki
- PA Kanegafuchi Chemical Industry Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 12 pp. CODEN: JKXXAF
- DT Patent
- LA Japanese
- IC ICM C08L067-02
- ICS C08K003-00; C08K005-00; C08G063-85; C08L067-02; C08L051-06

KIND DATE

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 35, 38

| FAN.CNT | 1 | | |
|---------|------|----|--|
| PA' | TENT | NO | |

| PI JP 09241490 | | A | 19970916 | JP 1996-8581 | 3 | 19960313 |
|---------------------------|------------|-------------------------------|---------------|---------------------------------|-----------|----------|
| PRAI JP 1996-858
CLASS | 13 | | 19960313 | | | |
| PATENT NO. | CLASS | PATENT | FAMILY CLASS | SIFICATION COD | ES | |
| JP 09241490 | ICM
ICS | C08L06*
C08K003
C08L051 | 3-00; C08K005 | -00; C08G063- | 85; C08L0 | 57-02; |
| | IPCI | [ICS, 6] | | ; C08K0003-00
85 [ICS,6]; C0 | | |

C08K0005-00 [I,C*]; C08K0005-00 [I,A]; C08L0067-00 [I,C*]; C08L0067-00 [I,A]; C08L0067-02 [I,A]
Title compns. contain (A) 100 parts poly(ethylene terephthalate)-based

IPCR C08K0003-00 [I,C*]; C08K0003-00 [I,A]; C08G0063-00
[I,C*]; C08G0063-82 [I,A]; C08G0063-85 [I,A];

APPLICATION NO.

DATE

polyesters prepared by polymerization using Ge compound catalysts, (B) 0.2-50 parts graft copolymers obtained by contacting (a) 100 parts polyolefins with

aqueous
suspensions containing (b) 0.1-500 parts vinyl monomers, (c) 0.1-30 parts
CH2:CRC(:0)NHCH2Ar (Ar = \ge 1 glycidyloxy-containing C6-23 aromatic

CH2:CRC(:0)MHCHIZAr (Ar = >1 glycidyloxy-containing C6-23 aromatic hydrocarbyl; R = H, Me), and (d) 0.01-10 parts [for 100 parts of (a + b)] radically polymerization initiators, and (C) 5-200 parts reinforcement

fillers.

Thus, poly(ethylene terephthalate) prepared using GeO2 100, N-[(2,3-epoxypropoxy)-3,5-dimethylphenylmethyl]acrylamide-ethylene-propylene-styrene graft copolymer 10, T 195H/P (glass fiber) 50, ADK Stab AO 60 0.35, and ADK Stab AO 412S 0.15 part were dry blended, melt kneaded,

pelletized, and injection molded to give a test piece showing tensile

strength 150 MPa and good moisture-heat resistance.

ST polyester grafted polyolefin blend mech strength; polyethylene terephthalate polyolefin blend mech strength; glycidyl polyolefin grafted blend polyester; moisture resistance polyester grafted polyolefin; heat resistance polyester grafted polyolefin; germanium polymm catalyst

polyethylene terephthalate
IT Phenoxy resins

RL: MOA (Modifier or additive use); USES (Uses)

(brominated, fireproofing agents; poly(ethylene terephthalate)-based polyester blends with improved mech. strength and moisture-heat resistance)

IT Mica-group minerals, uses

RL: MOA (Modifier or additive use); USES (Uses)

(crystal nucleating agents, A 21S; poly(ethylene terephthalate)-based polyester blends with improved mech. strength and moisture-heat resistance)

IT Reinforced plastics

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(fiber-reinforced; poly(ethylene terephthalate)-based polyester blends with improved mech. strength and moisture-heat resistance)

IT Polymerization catalysts

(germanium compds.; poly(ethylene terephthalate)-based polyester

with improved mech. strength and moisture-heat resistance)

Polyolefins Polyolefins

RL: MOA (Modifier or additive use); USES (Uses)

(graft; poly(ethylene terephthalate) -based polyester blends with improved mech. strength and moisture-heat resistance)

IT Heat-resistant materials

Water-resistant materials

(poly(ethylene terephthalate)-based polyester blends with improved mech. strength and moisture-heat resistance)

T Polyesters, uses

Polyesters, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(poly(ethylene terephthalate)-based polyester blends with improved mech. strength and moisture-heat resistance)

IT Polymer blends

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(poly(ethylene terephthalate)-based polyester blends with improved mech. strength and moisture-heat resistance)

IT Polvethers, uses

Polyethers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(polyester-, block; poly(ethylene terephthalate)-based polyester blends

with improved mech. strength and moisture-heat resistance)

Polyesters, uses Polyesters, uses

RL: MOA (Modifier or additive use); USES (Uses)

(polyether-, block; poly(ethylene terephthalate)-based polyester

```
with improved mech. strength and moisture-heat resistance)
     Glass fibers, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (reinforcements, T 195H/P; poly(ethylene terephthalate)-based
        blends with improved mech. strength and moisture-heat resistance)
     14807-96-6, Micro Ace K 1, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (crystal nucleating agents; poly(ethylene terephthalate)-based
        polyester blends with improved mech. strength and moisture-heat
        resistance)
ΤТ
     9003-53-6D, Polystyrene, brominated
                                          152787-57-0, YPB 43M
     RL: MOA (Modifier or additive use); USES (Uses)
        (fireproofing agents; poly(ethylene terephthalate)-based polyester
        blends with improved mech. strength and moisture-heat resistance)
     1309-64-4, Antimony trioxide, uses
     RL: MOA (Modifier or additive use); USES (Uses)
        (fireproofing aids; poly(ethylene terephthalate)-based polyester
blends
        with improved mech. strength and moisture-heat resistance)
     196618-62-9P
     RL: PNU (Preparation, unclassified); PREP (Preparation)
        (modifiers; poly(ethylene terephthalate)-based polyester blends with
        improved mech. strength and moisture-heat resistance)
     108854-80-4P, Bisphenol A-ethylene oxide adduct-ethylene
    glycol-terephthalic acid block copolymer
                                               166399-68-4P
                                                               168967-98-4P
     180720-10-9P
     RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP
     (Preparation); USES (Uses)
        (poly(ethylene terephthalate)-based polyester blends with improved
        mech. strength and moisture-heat resistance)
     25038-59-9, Poly(ethylene terephthalate), uses
    RL: POF (Polymer in formulation); TEM (Technical or engineered material
     use); USES (Uses)
        (poly(ethylene terephthalate)-based polyester blends with improved
        mech. strength and moisture-heat resistance)
     1310-53-8, Germanium oxide, uses
     RL: CAT (Catalyst use); USES (Uses)
        (polymerization catalysts; poly(ethylene terephthalate)-based
polyester blends
        with improved mech. strength and moisture-heat resistance)
     106-89-8, Epichlorohydrin, reactions 13579-23-2,
     4-Acrylamidomethyl-2,6-dimethylphenol
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of modifiers for grafted polyolefins)
L27 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
     1995:693575 CAPLUS
AN
DN
    123:288321
OREF 123:51641a,51644a
    Entered STN: 22 Jul 1995
    Polyolefin compositions and their manufacture
TN
    Tamai, Kazuhiko; Kurimoto, Kenji; Tomita, Haruo
   Kanegafuchi Chemical Ind, Japan
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Jpn. Kokai Tokkyo Koho, 8 pp.

SO

10/593972 BY Primary Exr. Cynthia Hamilton CODEN: JKXXAF DT Patent LA Japanese ICM C08F255-00 IC ICS C08F263-04; C08L023-26; C08L031-04 CC 37-6 (Plastics Manufacture and Processing) FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. PI JP 07109319 19950425 JP 1993-277544 19931008 PRAI JP 1993-277544 19931008 CLASS PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES ______ JP 07109319 ICM C08F255-00 ICS C08F263-04; C08L023-26; C08L031-04 IPCI C08F0255-00 [ICM,6]; C08F0263-04 [ICS,6]; C08F0263-00 [ICS, 6, C*]; C08L0023-26 [ICS, 6]; C08L0023-00 [ICS, 6, C*]; C08L0031-04 [ICS, 6]; C08L0031-00 [ICS, 6, C*] IPCR C08L0023-00 [I,C*]; C08L0023-26 [I,A]; C08F0255-00 [I,C*]; C08F0255-00 [I,A]; C08F0263-00 [I,C*]; C08F0263-00 [I,A]; C08F0263-04 [I,A]; C08L0031-00 [I,C*]; C08L0031-04 [I,A] MARPAT 123:288321 Title polymers with improved mech. and adhesive properties are manufactured by melt-kneading 100 parts mixture of 5-95% polyolefins selected from polypropylene, polyethylene, ethylene-propene rubbers, and diene copolymers, and 5-95% EVA, 0.1-30 parts H2C:CRCONHCH2Ar (Ar = C6-23 aromatic hydrocarbyl containing ≥1 glycidyloxy group; R = H, Me), [e.g., N-(3,5-dimethyl-4-glycidyloxyphenylmethyl)acrylamide (I)], and 0.01-5 parts radical initiators. Thus, a mixture of Noblen D 501 50, Evaflex 260 40, I 10, and α,α'-bis(tert-butylperoxy-m-isopropyl)benzene 0.05 part was extruded at 200° with graft efficiency 87%. A specimen injection-molded from the graft polymer showed elongation >200% and no breakage in the impact test (ASTM D 256) and two Al sheets bonded with the graft polymer showed T-peel strength 18 kg/25 mm. ST polyolefin EVA grafting glycidyloxydimethylphenylmethylacrylamide; impact resistance modified polyolefin EVA; adhesiveness modified polyolefin EVA metal; radical initiator grafting polyolefin glycidyloxydimethylphenylmeth vlacrvlamide Adhesives Impact-resistant materials (polyolefin compns. and their manufacture) ΙT Polymerization (graft, polvolefin compns. and their manufacture) Polymerization catalysts (radical, polyolefin compns. and their manufacture)

1068-27-5 2094-98-6, 1,1'-Azobis(cyclohexane-1-carbonitrile)

RL: CAT (Catalyst use); USES (Uses)

166399-74-2 169549-21-7

(initiators; polyolefin compns. and their manufacture) 99431-43-3, N-[4-(2,3-Epoxypropoxy)-3,5-dimethylphenylmethyl]acrylamide

RL: MOA (Modifier or additive use); USES (Uses) (polyolefin compns. and their manufacture)

```
106-89-8, Epichlorohydrin, reactions 13579-23-2,
    4-Acrylamidomethyl-2,6-dimethylphenol
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (polyolefin compns. and their manufacture)
ΙT
    7429-90-5, Aluminum, miscellaneous
    RL: MSC (Miscellaneous)
       (sheets; polyolefin compns. and their manufacture)
L27 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
AN
   1995:613049 CAPLUS
DN
   123:230192
OREF 123:41113a,41116a
   Entered STN: 15 Jun 1995
TI Modified polyolefin-based polymer compositions with good discoloration
    prevention
IN Munakata, Yasumitsu; Kurimoto, Kenji; Tomita, Haruo
   Kanegafuchi Chemical Ind, Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
    CODEN: JKXXAF
DT
   Patent
LA
   Japanese
TC
   ICM C08L023-02
    ICS C08F255-00; C08K005-15
    37-6 (Plastics Manufacture and Processing)
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                        APPLICATION NO.
                                                             DATE
                                         ______
   JP 07082425
                      A 19950328 JP 1993-255000
                                                             19930917
PRAI JP 1993-255000
                             19930917
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
JP 07082425
               ICM C08L023-02
               ICS C08F255-00; C08K005-15
               IPCI C08L0023-02 [ICM.61; C08L0023-00 [ICM.6.C*];
                      C08F0255-00 [ICS,6]; C08K0005-15 [ICS,6]; C08K0005-00
                      [ICS, 6, C*]
                IPCR C08F0255-00 [I,C*]; C08F0255-00 [I,A]; C08K0005-00
                      [I,C*]; C08K0005-15 [I,A]; C08K0005-1515 [I,A];
                      C08L0023-00 [I,C*]; C08L0023-02 [I,A]
AB Title compns. useful for fibers, films, and moldings, contain (A) 100
    parts polyolefin-based polymers, (B) 0.01-30 parts glycidyl
group-containing
    modifying agents of RC(:CH2)C(O)NHCH2Ar (R = H, Me; Ar = ≥1
    glycidyl group-containing C6-23 aromatic hydrocarbyl), (C) 0.01-2 parts
radical
    initiators, and (D) 0.1-10 parts ≥1 stabilizer chosen from
    antioxidants and light stabilizers. Thus, EP 02P (ethylene-propylene
    copolymer) 100, N-[(2,3-epoxypropoxy)-3,5-dimethylphenylmethyl]acrylamide
```

7, Perhexa V 40 0.23, and Irganox 1010 0.5 part were mixed, kneaded at

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220°, and extruded to give pellets, which was dried, dissolved in
     xylene at 100°, and dropped into acetone to give a modified
     polyolefin having epoxy equiv 4220 g/equiv, graft efficiency 98%, and
aood
    discoloration resistance.
ST
    discoloration prevention modified polyolefin; modifying agent polyolefin
    blend; radical initiator polyolefin blend; stabilizer polyolefin blend
    Rubber, ethylene-propene
    RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (EP 02P; modified polyolefin-based polymer blends with good
        discoloration prevention)
     Antioxidants
     Light stabilizers
        (modified polyolefin-based polymer blends with good discoloration
        prevention)
IT
     Discoloration prevention
        (agents, modified polyolefin-based polymer blends with good
        discoloration prevention)
     Alkenes, properties
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (polymers, modified polyolefin-based polymer blends with good
        discoloration prevention)
     Polymerization catalysts
        (radical, modified polvolefin-based polymer blends with good
        discoloration prevention)
ΤТ
     138049-74-8P
                   138230-47-4P
     RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP
     (Properties); TEM (Technical or engineered material use); PREP
     (Preparation); USES (Uses)
        (modified polyolefin-based polymer blends with good discoloration
        prevention)
ΙT
     106565-43-9, Noblen AH 561
     RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (modified polyolefin-based polymer blends with good discoloration
       prevention)
ΙT
     99431-43-3P
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);
RACT
     (Reactant or reagent)
        (modifying agent; modified polyolefin-based polymer blends with good
        discoloration prevention)
     995-33-5, Perhexa V 40
                             6731-36-8, Perhexa 3M
     RL: CAT (Catalyst use); USES (Uses)
        (radical polymerization initiator; modified polyolefin-based polymer
blends
        with good discoloration prevention)
     106-89-8, Epichlorohydrin, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction with acrylamidomethydimethylphenol)
     13579-23-2, 4-Acrylamidomethyl-2,6-dimethylphenol
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction with epichlorohydrin)
```

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9010-79-1
    RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
     engineered material use); USES (Uses)
        (rubber, EP 02P; modified polyolefin-based polymer blends with good
        discoloration prevention)
     6683-19-8, Irganox 1010 94765-76-1, Irganox B 900
     RL: MOA (Modifier or additive use); USES (Uses)
        (stabilizer; modified polyolefin-based polymer blends with good
       discoloration prevention)
L27 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
   1994:681864 CAPLUS
DN 121:281864
OREF 121:51461a,51464a
ED
   Entered STN: 10 Dec 1994
TI Modified polyolefins and manufacture thereof
IN Tamai, Kazuhiko; Matsumura, Takahisa; Tomita, Haruo
PA Kanegafuchi Chemical Ind, Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
    CODEN: JKXXAF
   Patent
DT
LA
    Japanese
    ICM C08F255-00
    37-3 (Plastics Manufacture and Processing)
FAN.CNT 1
    PATENT NO.
                       KIND DATE
                                         APPLICATION NO.
                                                               DATE
                                          ______
                       ----
   JP 06116343
                       A 19940426 JP 1992-289436
                                                              19921002
PRAI JP 1992-289436
                              19921002
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
   _____
JP 06116343
               ICM C08F255-00
                IPCI C08F0255-00 [ICM, 5]
                IPCR C08F0255-00 [I,C*]; C08F0255-00 [I,A]
OS
    MARPAT 121:281864
AB
   The title polymers with improved mech. properties, heat resistance,
    dyeability, coatability, etc. are formed without significant viscosity
    change or odor by reacting polyolefins with glycidyl compds.
    CH2:CRCONHCH2Ar (Ar = C6-23 aromatic hydrocarbyl having ≥1 glycidoxy
    group; R = H, Me) in the presence of ≥1 of 1,1'-azobis(cyclohexane-
     1-carbonitrile) (I), 1-[(1-cyano-1-methylethyl)azo]formamide,
     2-phenylazo-4-methoxy-2,4-dimethylvaleronitrile, 2,2'-azobis(2-
    methylbutyronitrile), 2,2'-azobis(2,4,4-trimethylpentane),
     2,2'-azobis(2-acetoxypropane), and 2,2'-azobis(2-acetoxybutane). EP-02P
    was grafted with 7 phr N-(4-glycidoxy-3,5-dimethylbenzyl)acrylamide in
t.he
     presence of 0.1 phr I by extruding at 180° at a rate of 10 kg/h.
    epoxy modified polyolefin; ethylene propene rubber epoxy grafted
    Azo compounds
     RL: USES (Uses)
        (graft polymerization catalysts, for ethylene-propene rubber with
glycidoxv
       group-containing acrylamides)
    Polymerization catalysts
```

```
(graft, azo compds., for ethylene-propene rubber with glycidoxy
       group-containing acrylamides)
    2094-98-6, 1,1'-Azobis(cyclohexane-1-carbonitrile) 10288-28-5
    13472-08-7, 2,2'-Azobis(2-methylbutyronitrile) 35634-74-3 39198-34-0,
    2,2'-Azobis(2,4,4-trimethylpentane) 40888-97-9, 2,2'-Azobis(2-
    acetoxypropane)
                    57908-48-2, 2,2'-Azobis(2-acetoxybutane)
    RL: USES (Uses)
       (graft polymerization catalysts, for ethylene-propene rubber with
glycidoxy
       group-containing acrylamides)
тт
    99431-43-3P
    RL: PREP (Preparation)
       (manufacture and grafting with ethylene-propene rubber)
    138049-71-5P 138230-47-4P
    RL: PREP (Preparation)
       (manufacture of, with good adhesive properties, catalysts for)
    106-89-8, Epichlorohydrin, reactions
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (reaction of, with acrylamidomethyldimethylphenol)
    13579-23-2, 4-Acrylamidomethyl-2,6-dimethylphenol
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (reaction of, with epichlorohydrin)
L27 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
    1993:651367 CAPLUS
AN
DN
    119:251367
OREF 119:44855a,44858a
ED
   Entered STN: 11 Dec 1993
  Blended polyester molding compositions having good compatibility and high
    strength
IN
   Deguchi, Yoshikuni; Yonezawa, Kazuva; Hamaguchi, Shigeki; Tamai, Kazuhiko
PA Kanegafuchi Kagaku Kogyo K. K., Japan
SO PCT Int. Appl., 29 pp.
    CODEN: PIXXD2
DT
   Patent
LA
   Japanese
TC
    ICM C08L067-02
    ICS C08L067-04
    37-6 (Plastics Manufacture and Processing)
CC
FAN.CNT 1
    PATENT NO.
                      KIND DATE APPLICATION NO.
                                                           DATE
                       ----
PI WO 9307215
                        A1
                             19930415 WO 1991-JP1320
                                                              19911001
        W: CA, JP, US
        RW: BE, DE, FR, GB, IT
    EP 559890
                       A1 19930915
                                        EP 1991-916746 19911001
        R: BE, DE, FR, GB, IT
PRAI WO 1991-JP1320
                             19911001
                        W
CLASS
           CLASS PATENT FAMILY CLASSIFICATION CODES
PATENT NO.
                     C08L067-02
WO 9307215
               ICM
                ICS
                      C08L067-04
```

[ICS, 5, C*]

C08L0067-02 [ICM, 5]; C08L0067-04 [ICS, 5]; C08L0067-00

C08L0023-00 [I,C*]; C08L0023-26 [I,A]; C08L0067-00 TPCR [I,C*]; C08L0067-02 [I,A]; C08L0067-04 [I,A] ECLA C08L023/26+B4K; C08L067/02+B2A1; C08L067/02+B2Z; C08L067/04+B2A1 EP 559890 IPCI C08L0067-02 [ICM, 5]; C08L0067-04 [ICS, 5]; C08L0067-00 [ICS, 5, C*] IPCR C08L0023-00 [I,C*]; C08L0023-26 [I,A]; C08L0067-00 [I,C*]; C08L0067-02 [I,A]; C08L0067-04 [I,A] The title compns. comprise 100 parts polyesters, and 1-100 parts polyolefins which have been modified to bear

glycidoxyarvlmethylacrylamide

groups. Mixing 4-acrylamidomethyl-2,6-dimethylphenol with epichlorohydrin

in the presence of PhCH2Et3N+Cl- at 100° for 30 min, cooling to 50°, adding 5-N NaOH, and mixing at 45-50° prepared

N-[4-(2,3-epoxypropoxy)-3,5-dimethylphenylmethyl]acrylamide the grafting by which of LDPE gave an modified polyolefin useful as compatible modifier

for polvester.

glycidoxyphenylmethylacrylamide grafted polyethylene improver polyester blend; compatible improver glycidoxy acrylamide graft polyclefin; epoxy modified LDPE blend polyester

Polyesters, uses

RL: USES (Uses)

(blends with glycidoxybenzylacrylamide-olefin graft copolymers, compatible, for molding with good strength)

Plastics, molded

RL: USES (Uses)

(polyester blends with epoxy group-containing acrylamide copolvolefins,

compatible, with good strength)

Polymerization

(graft, of polyolefins with glycidoxybenzylacrylamides, for use in polyamide blends)

Alkenes, polymers

RL: USES (Uses)

(α-, polymers, with ethylene, grafted, blends with polyesters, compatible, for molding with good strength)

24968-12-5, PBT polymer 25038-59-9, Kurapet KL226R, uses RL: USES (Uses)

(blends with qlycidoxybenzylacrylamide-olefin graft copolymers, compatible, for molding with good strength)

74-85-1D, Ethylene, polymers with α-olefin, grafted with 138049-71-5 epoxypropoxydimethylphenylmethylacrylamide 138049-81-7 138230-47-4

RL: USES (Uses)

(blends with polyesters, compatible, for molding with good strength) 3115-68-2, Tetrabutylphosphonium bromide

RL: CAT (Catalyst use); USES (Uses) (catalyst, for polyester blends with epoxy group-containing acrylamide

copolvolefins) 99431-43-3P, N-[4-(2,3-Epoxypropoxy)-3,5-dimethylphenylmethyl]acrylamide RL: PREP (Preparation)

(preparation and grafting polyolefin with)

106-89-8, Epichlorohydrin, reactions

```
RL: RCT (Reactant); RACT (Reactant or reagent)
       (reaction of, with acrylamidomethyldimethylphenol)
    13579-23-2, 4-Acrylamidomethyl-2,6-dimethylphenol
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (reaction of, with epichlorohydrin)
L27 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
AN
   1993:627224 CAPLUS
DN
   119:227224
OREF 119:40567a,40570a
ED
   Entered STN: 27 Nov 1993
TI Blended polyamide molding compositions having good compatibility and high
    strength
IN Deguchi, Yoshikuni; Yonezawa, Kazuya; Hamaguchi, Shigeki; Tamai, Kazuhiko
PA
   Kanegafuchi Kagaku Kogyo K. K., Japan
   PCT Int. Appl., 22 pp.
SO
    CODEN: PIXXD2
DT
   Patent
LA
    Japanese
    ICM C08L077-00
TC
    ICS C08L023-00; C08L037-00
    37-6 (Plastics Manufacture and Processing)
FAN.CNT 1
    PATENT NO.
                      KIND DATE
                                        APPLICATION NO.
                                                               DATE
                       A1 19930415 WO 1991-JP1319
PΙ
    WO 9307218
                                                               19911001
        W: CA, US
        RW: BE, DE, FR, GB, IT
    EP 559892
                A1 19930915 EP 1991-917026
                                                               19911001
        R: BE, DE, FR, GB, IT
PRAI WO 1991-JP1319
                       W
                              19911001
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
WO 9307218
               ICM C08L077-00
                ICS
                      C08L023-00; C08L037-00
                IPCI C08L0077-00 [ICM,5]; C08L0023-00 [ICS,5]; C08L0037-00
                IPCR C09K0003-00 [I.C*]; C09K0003-00 [I.A]; C08G0063-00
                      [I,C*]; C08G0063-685 [I,A]; C08G0063-91 [I,A];
                      C08G0065-00 [I,C*]; C08G0065-48 [I,A]; C08G0069-00
                      [I,C*]; C08G0069-48 [I,A]; C08G0075-00 [I,C*];
                      C08G0075-02 [I,A]; C08G0075-06 [I,A]; C08L0023-00
                      [I,C*]; C08L0023-00 [I,A]; C08L0051-00 [I,C*];
                      C08L0051-06 [I,A]; C08L0077-00 [I,C*]; C08L0077-00
                      [I.A]; C08L0077-02 [I.A]
                ECLA C08L023/00+B4N4; C08L051/06+B4; C08L077/00+B2A1;
                      C08L077/00+B5A; C08L077/02+B2A1; C08L077/02+B5A
EP 559892
                IPCI
                      C08L0077-00 [ICM, 5]; C08L0023-00 [ICS, 5]; C08L0037-00
                IPCR
                      C09K0003-00 [I,C*]; C09K0003-00 [I,A]; C08G0063-00
                      [I,C*]; C08G0063-685 [I,A]; C08G0063-91 [I,A];
                      C08G0065-00 [I,C*]; C08G0065-48 [I,A]; C08G0069-00
                      [I,C*]; C08G0069-48 [I,A]; C08G0075-00 [I,C*];
                      C08G0075-02 [I,A]; C08G0075-06 [I,A]; C08L0023-00
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[I,C*]; C08L0023-00 [I,A]; C08L0051-00 [I,C*];
                       C08L0051-06 [I,A]; C08L0077-00 [I,C*]; C08L0077-00
                        [I.A]: C08L0077-02 [I.A]
    The title compns. comprise 100 parts polyamides, and 1-100 parts
    polyolefins which have been modified with glycidoxyarylmethylacrylamide
    groups. Mixing 4-acrylamidomethyl-2,6-dimethylphenol with
epichlorohydrin
     in the presence of PhCH2Et3N+Cl- at 100° for 30 min, cooling to
     50°, adding 5 N NaOH, and mixing at 45-50° prepared
     N-[4-(2,3-epoxypropoxy)-3,5-dimethylphenylmethyl]acrylamide the grafting
    by which of LDPE gave an modified polyolefin useful as compatible
modifier
     for polvamide.
     glycidoxyphenylmethylacrylamide grafted polyethylene improver polyamide
     blend; compatible improver glycidoxy acrylamide graft polyolefin; epoxy
     modified LDPE blend polyamide
IT
     Polyamides, uses
    RL: USES (Uses)
        (blends with epoxy group-containing acrylamide copolyolefins,
compatible,
        for molding with good strength)
     Plastics, molded
     RL: USES (Uses)
       (polyamide blends with epoxy group-containing acrylamide
copolvolefins,
       compatible, with good strength)
тт
    Polymerization
        (graft, of polyolefins with glycidoxybenzylacrylamides, for use in
        polyamide blends)
     25038-54-4, Amilan CM1026, uses
     RL: USES (Uses)
        (blends with epoxy group-containing acrylamide copolyolefins,
compatible,
        for molding with good strength)
     138049-71-5
                  138049-81-7
                                138230-47-4
     RL: USES (Uses)
        (blends with polyamides, compatible, for molding with good strength)
     99431-43-3P, N-[4-(2,3-Epoxypropoxy)-3,5-dimethylphenylmethyl]acrylamide
    RL: PREP (Preparation)
        (preparation and grafting polyolefin with)
ΙT
     106-89-8, Epichlorohydrin, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with acrylamidomethyldimethylphenol)
тт
     13579-23-2, 4-Acrylamidomethyl-2,6-dimethylphenol
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (reaction of, with epichlorohydrin)
L27 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
AN
    1992:195513 CAPLUS
DN
    116:195513
OREF 116:33151a,33154a
   Entered STN: 16 May 1992
    Acrylamide group-containing cyclic ether copolymers
TN
    Deguchi, Yoshikuni; Yonezawa, Kazuya
PA
    Kanegafuchi Chemical Industry Co., Ltd., Japan
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SO Jpn. Kokai Tokkvo Koho, 4 pp.

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CODEN: JKXXAF
DT Patent
   Japanese
LA
IC
    ICM C08G065-22
    ICS C08G065-22
   37-3 (Plastics Manufacture and Processing)
FAN.CNT 1
                    KIND DATE APPLICATION NO.
    PATENT NO.
   JP 03285914
                             19911217 JP 1990-87022
                       A
                                                              19900330
PRAI JP 1990-87022
                             19900330
CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
JP 03285914
               ICM
                      C08G065-22
                ICS
                      C08G065-22
                IPCI C08G0065-22 [ICM,5]; C08G0065-22 [ICS,5]; C08G0065-00
                IPCR C08G0065-00 [I,C*]; C08G0065-22 [I,A]; C08G0065-02
                       [I.A]
    Three-eight-membered cyclic ethers and acrylamide group-containing cyclic
    ethers are copolymd. to prepared title copolymers. Thus,
    4-acrylamidomethyl-2,6-dimethylphenol was reacted with epichlorohydrin to
    prepare N-[4-(2,3-epoxypropoxy)-2,5-dimethylphenylmethyl]acrylamide which
    (10 parts) was copolymd. with 100 parts propylene oxide.
ST
   propylene oxide epoxypropoxydimethylphenylmethylacrylamide copolymer;
    cyclic ether ring opening copolymer
ΙT
    Polymerization
       (ring-opening, of [(epoxypropoxy)dimethylphenylmethyl]acrylamide and
       propylene oxide)
    99431-43-3P
    RL: IMF (Industrial manufacture); PREP (Preparation)
       (manufacture and polymerization of)
    140913-00-4P
    RL: PREP (Preparation)
       (preparation of)
    106-89-8, reactions
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (reaction of, with acrylamidomethyldimethylphenol)
ΙT
    13579-23-2
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (reaction of, with epichlorohydrin)
L27 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2008 ACS on STN
AN
   1992:195144 CAPLUS
DN
   116:195144
OREF 116:33095a,33098a
ED
   Entered STN: 16 May 1992
   Modified polvolefin polymer, production thereof, and resin composition
    containing the same
   Deguchi, Yoshikuni; Yonezawa, Kazuya
   Kanegafuchi Chemical Industry Co., Ltd., Japan
PA
SO PCT Int. Appl., 19 pp.
    CODEN: PIXXD2
```

- DT Patent
- LA Japanese
- IC ICM C08F008-08
 - ICS C08F008-30; C08F255-00; C08F279-02; C08F220-58; C08L033-24; C08L051-00; C08F210-00; C08L023-00
- CC 35-8 (Chemistry of Synthetic High Polymers)

| FAN.C | | stry or | Synthet | ic High Poly | mers) | |
|-------|---|------------|---|--|--|--|
| | PATENT NO. | | KIND | DATE | APPLICATION NO. | DATE |
| PI 1 | WO 9117192
W: CA, | JP, US | A1 | 19911114 | WO 1991-JP552 | 19910424 |
| 1 | CA 2063265
EP 480069
EP 480069 | | , GB, IT
A1
A1
B1 | 19911029
19920415
19981223 | CA 1991-2063265
EP 1991-908651 | 19910424
19910424 |
| PRAI | R: BE,
US 5294673
JP 1990-114
JP 1990-129
WO 1991-JP5 | 462
473 | _ | 19940315
19900428
19900518
19910424 | US 1991-778144 | 19911226 |
| | NT NO. | | | | IFICATION CODES | |
| | | ICM
ICS | C08F008 | -08
-30; C08F255 | -00; C08F279-02; C08F2
-00; C08F210-00; C08L0 | 20-58; |
| | | IPCI | [ICS, 5, 6
C08F027
C08F022
C08L003 | C*]; C08F025
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0-00 [ICS,5,0
3-00 [ICS,5,0 | ; C08F0008-30 [ICS,5];
5-00 [ICS,5]; C08F0279:
C*]; C08F0220-58 [ICS,!
C*]; C08L0033-24 [ICS,!
C*]; C08L0051-00 [ICS,!
; C08L0023-00 [ICS,5] | -02 [ICS,5];
5];
5]; |
| | | IPCR | [N,C*];
C08F021
[I,A]; | C08F0110-06
0-00 [I,A];
C08F0277-00 | C08F0008-30 [I,A]; C08
[N,A]; C08F0210-00 [I,
C08F0255-00 [I,C*]; C08
[I,C*]; C08F0277-00 [I,
C08F0279-02 [I,A] | C*];
BF0255-00 |
| C3 2 | 063265 | ECLA | C08F277 | /00+220/58; | 08F210/00; C08F255/00+;
C08F279/02+220/58; M08i
; C08F0255-00 [ICS,5]; | ? |
| CA 2 | 003203 | IPCR | [ICS,5]
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[N,C*];
C08F021 | ; C08F0008-3
8-00 [I,C*];
C08F0110-06
0-00 [I,A]; | (in, A); C08F0008-00
C08F0008-30 [I,A]; C08
[N,A]; C08F0210-00 [I,C08F0255-00 [I,C*]; C08
[I,C*]; C08F0277-00 [I,C*]; | [ICS,5,C*]
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C*];
BF0255-00 |
| EP 4: | 80069 | IPCI | C08F027
C08F000
[ICS,5,6
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8-08 [ICM,5]
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9-00 [ICS,5,
0-00 [ICS,5, | C08F0279-02 [I,A]; C08F0018-30 [ICS,5]; C08F00208-30 [ICS,5]; C08F0229-58 [ICS,C*]; C08F0220-58 [ICS,C*]; C08L0033-24 [ICS,C*]; C08L0051-00 [ICS,5]; C08L0023-00 [ICS,5] | C08F0008-00
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5]; |
| | | IPCR | C08F000:
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C08F0255-00 [I,C*]; C08 | C*]; |

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[I,A]; C08F0277-00 [I,C*]; C08F0277-00 [I,A];
                        C08F0279-00 [I,C*]; C08F0279-02 [I,A]
                 ECLA
                        C08F008/30+10/00; C08F210/00; C08F255/00+220/58;
                        C08F277/00+220/58; C08F279/02+220/58
US 5294673
                 IPCI
                        C08F0269-00 [ICM, 5]
                        C08F0008-00 [I,C*]; C08F0008-30 [I,A]; C08F0110-00
                 IPCR
                        [N,C*]; C08F0110-06 [N,A]; C08F0210-00 [I,C*];
                        C08F0210-00 [I,A]; C08F0255-00 [I,C*]; C08F0255-00
                        [I,A]; C08F0277-00 [I,C*]; C08F0277-00 [I,A];
                        C08F0279-00 [I,C*]; C08F0279-02 [I,A]
                 NCL.
                        525/286.000
                 ECLA
                        C08F008/30+10/00; C08F210/00; C08F255/00+220/58;
                        C08F277/00+220/58; C08F279/02+220/58; M08F
    The title polymer having good mech. properties, heat resistance,
     dyeability, adhesive properties, coatability, etc. and good compatibility
     with other resins contain 1 -CH2C(R)(CONHCH2Ar)- (Ar = C6-23 aromatic
     hydrocarbon group containing ≥1 glycidyl group; R H, Me) unit/2-1000
     olefin unit. Polypropylene 100, N-[4-(2,3-epoxypropoxy)-3,5-
     dimethylbenzyllacrylamide 1, and benzovl peroxide 0.1 part were kneaded
at
     200° for 5 min and washed with acetone to give modified polymer of
    degree of grafting 0.7%.
     polyolefin modified heat resistance; adhesion modified polyolefin;
     polypropylene epoxyacrylamide modified
    Heat-resistant materials
        ((glycidoxydimethylbenzyl)acrylamide-grafted polyolefins)
     Adhesives
        ((glycidoxydimethylbenzyl)acrylamide-grafted polyolefins, for
aluminum)
     Rubber, butvl, preparation
     RL: PREP (Preparation)
        ((glycidoxydimethylbenzyl)acrylamide-grafted, manufacture of, with
good heat
        resistance and adhesive properties)
     Rubber, synthetic
     RL: PREP (Preparation)
        (dicyclopentadiene-ethylene-propene,
(glvcidoxvdimethvlbenzvl)acrvlamid
        e-grafted, manufacture of, with good heat resistance and adhesive
        properties)
ΙT
    Rubber, synthetic
     RL: PREP (Preparation)
        (ethylene-ethylidenenorbornene-propene,
(glvcidoxvdimethvlbenzvl)acrvla
       mide-grafted, manufacture of, with good heat resistance and adhesive
        properties)
IT
     Polymerization
        (graft, of polyolefins, with (glycidoxydimethylbenzyl)acrylamide)
     Rubber, butadiene, preparation
     RL: PREP (Preparation)
        (of 1,2-configuration, (glycidoxydimethylbenzyl)acrylamide-grafted,
        manufacture of, with good heat resistance and adhesive properties)
     7429-90-5, Aluminum, miscellaneous
     RL: MSC (Miscellaneous)
        (adhesives for, (glycidoxydimethylbenzyl)acrylamide-grafted
```

as)

IT 99431-43-3P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation);

RACT

(Reactant or reagent)

(manufacture and graft polymerization of)

- IT 138049-71-5P 138049-81-7P 140681-96-5P 140681-97-6P 140681-98-7P 140701-92-4P
- RL: IMF (Industrial manufacture); PREP (Preparation)
 (manufacture of, with good heat resistance and adhesive properties)
- IT 106-89-8, Epichlorohydrin, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
- (reaction of, with acrylamidomethyldimethylphenol)
- RL: RCT (Reactant); RACT (Reactant or reagent)
- (reaction of, with epichlorohydrin) T 9010-85-9P
- RL: PREP (Preparation)

(rubber, (glycidoxydimethylbenzyl)acrylamide-grafted, manufacture of, with

good heat resistance and adhesive properties)

T 9003-17-2P

RL: PREP (Preparation)

(rubber, of 1,2-configuration, (glycidoxydimethylbenzyl)acrylamide-graffed, manufacture of, with good heat resistance and adhesive properties)

=> file reg COST IN U.S. DOLLARS FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 37.23 219.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL ENTRY SESSION -7.20 -21.60

CA SUBSCRIBER PRICE

FILE 'REGISTRY' ENTERED AT 17:14:45 ON 09 SEP 2008 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1 DICTIONARY FILE UPDATES: 8 SEP 2008 HIGHEST RN 1047724-15-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=> s c13h17no2/mf
L28
         5280 C13H17NO2/MF
=> s 128 and acrylamide
         18439 ACRYLAMIDE
1.29
            3 L28 AND ACRYLAMIDE
=> d 1-3
L29 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN
RN
     727654-92-4 REGISTRY
ED
    Entered STN: 17 Aug 2004
    2-Propenamide, N-[1-methyl-2-(phenylmethoxy)ethyl]- (CA INDEX NAME)
CN
OTHER CA INDEX NAMES:
    Acrylamide, N-[2-(benzyloxy)-1-methylethyl]- (5CI)
MF
    C13 H17 N O2
SR
    CAS EARLY REGISTRATIONS
    STN Files: CA, CAPLUS
```

NH-C-CH-CH2 Me-CH-CH2-O-CH2-Ph

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L29 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 13579-40-3 REGISTRY
- ED Entered STN: 16 Nov 1984
- CN 2-Propenamide, N-[(2-hydroxy-3,5-dimethylphenyl)methyl]-2-methyl- (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN Acrylamide, N-(3,5-dimethylsalicyl)-2-methyl- (8CI)
- MF C13 H17 N O2
- CI COM
- LC STN Files: BEILSTEIN*, CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL (*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L29 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN

RN 7534-87-4 REGISTRY

ED Entered STN: 16 Nov 1984

CN Acrylamide, N-(1,2-epoxyhexahydro-4,7-methanoindan-5-yl)- (7CI, 8CI) (CA INDEX NAME)

MF C13 H17 N O2

LC STN Files: CA, CAOLD, CAPLUS, USPATOLD

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s 13579-40-3/crn L31 1 13579-40-3/CRN

=> d

L31 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN

RN 149787-60-0 REGISTRY

ED Entered STN: 04 Sep 1993

CN Carbonic acid, 1,1-dimethylethyl 2-methyl-4-[[(2-methyl-1-oxo-2-

propenyl)amino]methyl]phenyl ester, polymer with 1,1-dimethylethyl 2-methyl-6-[[(2-methyl-1-oxo-2-propenyl)amino]methyl]phenyl carbonate, N-[(2-hydroxy-3,5-dimethylphenyl)methyl]-2-methyl-2-propenamide and N-(4-hydroxy-3-methylphenyl)-2-methyl-2-propenamide (9CI) NAME) OTHER CA INDEX NAMES: 2-Propenamide, N-(4-hydroxy-3-methylphenyl)-2-methyl-, polymer with 1.1-dimethylethyl 2-methyl-4-1/(2-methyl-1-oxo-2propenyl)amino]methyl]phenyl carbonate, 1,1-dimethylethyl 2-methyl-6-[[(2-methyl-1-oxo-2-propenyl)amino]methyl]phenyl carbonate and N-[(2-hydroxy-3,5-dimethylphenyl)methyl]-2-methyl-2-propenamide (9CI) 2-Propenamide, N-[(2-hydroxy-3,5-dimethylphenyl)methyl]-2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-4-[[(2-methyl-1-oxo-2propenyl)amino]methyl]phenyl carbonate, 1,1-dimethylethyl 2-methyl-6-[[(2-methyl-1-oxo-2-propenyl)amino]methyl]phenyl carbonate and N-(4-hydroxy-3-methylphenyl)-2-methyl-2-propenamide (9CI) CN Carbonic acid, 1,1-dimethylethyl 2-methyl-6-[[(2-methyl-1-oxo-2propenvl)aminolmethyllphenyl ester, polymer with 1,1-dimethylethyl 2-methyl-4-[((2-methyl-1-oxo-2-propenyl)aminolmethyl]phenyl carbonate, N-[(2-hydroxy-3,5-dimethylphenyl)methyl]-2-methyl-2-propenamide and N-(4-hydroxy-3-methylphenyl)-2-methyl-2-propenamide (9CI) ME (C17 H23 N O4 . C17 H23 N O4 . C13 H17 N O2 . C11 H13 N O2)x CT PCT Polyacrylic SR CA LC STN Files: CA, CAPLUS, USPATFULL CM 1 CRN 149787-58-6 CMF C11 H13 N O2

CM :

CRN 149450-99-7 CMF C17 H23 N O4

CM 3

CRN 149450-98-6 CMF C17 H23 N O4

$$\begin{array}{c} \text{O} \quad \text{CH2} \\ \text{CH2-NH-C-C-Me} \\ \text{t-BuO-C-O} \\ \text{Me} \end{array}$$

CM 4

CRN 13579-40-3 CMF C13 H17 N O2

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file caplus
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 19.22 238.83

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY SESSION
ENTRY SESSION
ENTRY SESSION

CA SUBSCRIBER PRICE

0.00 -21.60

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FILE COVERS 1907 - 9 Sep 2008 VOL 149 ISS 11
FILE LAST UPDATED: 8 Sep 2008 (20080908/ED)
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Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

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http://www.cas.org/legal/infopolicy.html

=> d his

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L1
          4064 S C11H13NO2/MF
L2
              5 S L1 AND ACRYLAMIDE
L3
              0 S HYDROXYBENZYLACRYLAMIDE
            26 S HYDROXYBENZYL AND ACRYLAMIDE
L5
            24 S L4 NOT CHLORO
L6
            15 S L5 NOT TERT
L7
             0 S 13560-55-9/CRN
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1.8
            13 S L6
L9
             4 S L8 AND PHOTO?
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L10
             1 S 13560-56-0
L11
             1 S 23281-77-8
L12
             1 S 849686-90-4
L13
             1 S 104835-82-7
L14
            16 S 104835-82-7/CRN
            0 S 849686-90-4/CRN
L15
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2 S 23281-77-8/CRN

L16

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| L2: | |
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| => | s 130 or 131 |
| | 2 L30 |
| | 1 L31 |
| L3: | 2 2 L30 OR L31 |
| => | d all 1-2 |
| L3: | 2 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN |
| AN | 1993:549504 CAPLUS |
| DN | |
| ORI | EF 119:26551a,26554a
Entered STN: 02 Oct 1993 |
| TI | |
| | unsaturated carboxylic acid residue |
| IN | |
| PA | |
| so | Ger. Offen., 10 pp.
CODEN: GWXXBX |
| DT | |
| LA | |
| IC | |
| | ICS C08F020-58; C07F007-18; C07D307-20; C07D309-10; G03F007-004; |
| CC | H01L021-312
74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other |
| U | Reprographic Processes) |
| | Section cross-reference(s): 35 |
| FAI | N.CNT 1 |

| PAIN. | CNI I | | | | |
|-------|------------|------|----------|-----------------|----------|
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
| | | | | | |
| PI | DE 4126409 | A1 | 19930211 | DE 1991-4126409 | 19910809 |

| EP 528203 A1 19930224 EP 1992-112588 1
EP 528203 B1 19951011
R: BE, CH, DE, FR, GB, IT, LI | 9920723 |
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| US 5328973 A 19940712 US 1992-922507 1 | 9920731
9920810 |
| PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES | |
| DE 4126409 ICM C07C233-20
ICS C08F020-58; C07F007-18; C07D307-20; C07D309-
G03F007-004; H01L021-312 | 10; |
| IPCI C07C0233-20 [ICM,5]; C07C0233-00 [ICM,5,C*]; C08F0020-58 [ICS,5]; C08F0020-00 [ICS,5,C*]; C07F0007-18 [ICS,5]; C07F0007-00 [ICS,5,C*]; C07D307-20 [ICS,5]; C07D0307-00 [ICS,5,C*]; C07D0309-10 [ICS,5]; C07D0309-00 [ICS,5,C*]; G03F0007-004 [ICS,5]; H01L0021-312 [ICS,5]; | |
| H01L0021-02 [ICS,5,C*] | |
| [RCSJ3,C] IPCR C070C0233-00 [I,C*]; C07C0233-20 [I,A]; C08F0 [I,C*]; C08F0020-58 [I,A]; G03F0007-039 [I,C] G03F0007-039 [I,A] | |
| EP 528203 | |
| <pre>IPCR</pre> | |
| US 5328973 | 8F0030-00 |
| NCL 526/262.000; 430/270.100; 430/906.000; 430/9
526/266.000; 526/270.000; 526/279.000; 526/2
526/292.900; 526/298.000; 526/304.000 | |
| JP 05255216 | |
| IPCR C07C0233-00 [I,C*]; C07C0233-20 [I,A]; C08F0 [I,C*]; C08F0020-58 [I,A]; G03F0007-039 [I,A] G03F0007-039 [I,A] | |
| OS MARPAT 119:149504
GI | |

Page 174

```
The compds. I [R1 = acid-splittable group; R2 = alkyl, H, halogen, CN;
    R3-R6 = aliphatic, aromatic, araliph., halogen, OH, H; R7 = H, alkyl;
R8, R9 =
     H, alkyl, aryll, the polymers containing ≥10 mol% of I, and
    photosensitive compns. containing the polymer are claimed. The
composition is
    useful for resist material for deep-UV lithog.
   acrylamide polymer photosensitive compn photoresist; lithog deep UV
resist
    acrylamide
   Resists
       (photo-, deep-UV, acrylamide polymers for)
   Lithography
       (photo-, UV, light-sensitive compns. containing acrylamide polymers
for)
    13560-56-0P 13579-40-3P 104835-82-7P 149450-93-1P
     149450-94-2P 149450-95-3P 149450-96-4P 149450-97-5P 149450-98-6P
     149450-99-7P 149451-00-3P 149451-01-4P 149451-02-5P 149451-03-6P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
       (preparation and reaction of, polymer binder for photosensitive
composition from)
IT 149787-50-8P 149787-51-9P 149787-52-0P 149787-53-1P 149787-54-2P
     149787-55-3P 149787-56-4P 149787-57-5P 149787-60-0P
     149787-61-1P 149826-03-9P
    RL: SPN (Synthetic preparation); PREP (Preparation)
       (preparation and use of, in photosensitive composition)
L32 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
    1967:85610 CAPLUS
AN
DN
    66:85610
OREF 66:16015a
ED
   Entered STN: 12 May 1984
TI Benzylamides of unsaturated acids and polymers therefrom
PA CIBA Ltd.
SO Neth. Appl., 24 pp.
    CODEN: NAXXAN
DT Patent
LA
   Dutch
IC
    C07C
CC
    25 (Noncondensed Aromatic Compounds)
FAN.CNT 1
                      KIND DATE APPLICATION NO. DATE
    PATENT NO.
PΙ
    NL 6604304
                              19661003 NL 1966-4304
                                                                19660331
    CH 476689
                                          CH
     DE 1568261
                                          DΕ
                                          DE
    DE 1793113
    FR 1475097
                                          FR
    GB 1134341
                                          GB
    US 3627831
                              19711214
                                                                19690325
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19650401

PRAT CH

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CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 NL 6604304
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                IPCI
                       C07C
                 IPCR
                       C08F0020-00 [I,C*]; C08F0020-54 [I,A]; C08F0028-00
                        [I,C*]; C08F0028-00 [I,A]; C08L0007-00 [I,C*];
                       C08L0007-00 [I.A]; C08L0023-00 [I.C*]; C08L0023-02
                        [I,A]
US 3627831
                IPCR
                       C08F0020-00 [I,C*]; C08F0020-54 [I,A]; C08F0028-00
                        [I,C*]; C08F0028-00 [I,A]; C08L0007-00 [I,C*];
                       C08L0007-00 [I,A]; C08L0023-00 [I,C*]; C08L0023-02
                        [I,A]
                NCL.
                        564/207.000; 524/217.000; 524/220.000; 524/222.000;
                        524/721.000; 524/723.000; 524/728.000; 525/119.000;
                        526/280.000; 526/304.000; 526/313.000; 544/216.000;
                        562/451.000; 564/153.000; 564/154.000; 564/158.000
GI
     For diagram(s), see printed CA Issue.
AB
    The title compds. are prepared by treating N-methylolamides of unsatd.
    carboxvlic acids with phenols in an acidic medium. RCONHCH2X, where R is
     an alkenyl group and X is a phenolic hydroxyaryl group, are formed. If X
    has bacteriostatic or antioxidant properties, polymers or copolymers with
     corresponding properties can be obtained. For example, CH2:CHCONHCH2OH
     10.1, 2-hydroxynaphthalene 14.3, and thiodiphenylamine 0.1 part were
    dissolved in 60 vols. absolute EtOH and 6 vols. 37% HCl were added.
After 30
     hrs., the reaction mixture was poured into 600 vols. H2O to give 86%
     N-(2-hydroxynaphthylmethyl)acrylamide (I), m. 148°. Also prepared
     were (compound, yield, and m.p. given): N-(2-hydroxy-3,5-
     dimethylbenzyl)acrylamide, 59, 155°; N-(4-hydroxy-3,5-
     dimethylbenzyl)acrylamide, 52, 142°; N-(2-hydroxy-3-methyl-5-tert-
     butylbenzyl)acrylamide, 19, 160°; N-(2-hydroxy-5-
     chlorobenzyl)acrylamide, 60, 126°; 2,4-bis(acrylamidomethyl)-6-
     chlorophenol, 158°; N-(2-hydroxy-4-methyl-5-chlorobenzyl)acrylamide
     and 2,6-bis(acrylamidomethyl)-3-methyl-4-chlorophenol, 183° and
     190°; N-(2-hydroxy-5-nitrobenzylacrylamide, 61, 160°;
    N-(4-hydroxy-3,5-di-tert-butylbenzyl)acrylamide and N-(4-hydroxy-3,5-di-
     tert-butylbenzyl)methacrylamide, 94 and 88, 113° and 126°;
    N-(2-hvdroxv-3-methvl-5-chlorobenzvl)acrvlamide, 48, 139°;
    N-(2-hydroxy-3-isopropyl-5-chloro-6-methylbenzyl)acrylamide, 87,
    150°: N-(2-hydroxy-3-nitro-5-chlorobenzyl)acrylamide, 73,
     150°; N-(2-hydroxy-3-methylthio-5-methylbenzyl)acrylamide and
     2-methylthio-3,6-bis(acrylamidomethyl)-4-methylphenol, 147° and
     224°; N-[2-hydroxy-3-methyl-5-(methylthio)benzyl]acrylamide, 34,
     146°; 5-(acrylamidomethyl)salicylic acid 10, 162°;
    N-(2,4-dihydroxy-5-chlorobenzyl)acrylamide, 10, 187°;
    N-(2-hydroxy-3,5-dimethylbenzylmethacrylamide 44, 110°; and
    N-(2-methoxy-5-nitrobenzyl)acrylamide 82, 183-4°. Copolymers of
     the above compds. with styrene, Me, Bu, lauryl, and stearyl
methacrylates,
     acrylamide acrylonitrile, acrylic acid, and CH2:CC12 were prepared by
    radical polymerization
    13560-54-8P 13579-22-1P 13579-23-2P 13579-30-1P 13579-32-3P
     13579-37-8P 13579-40-3P 14800-18-1P 15252-50-3P
```

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

```
(Reactant or reagent)
        (preparation and polymerization of)
     13579-24-3P 13579-25-4P 13579-26-5P 13579-27-6P 13579-28-7P
     13579-29-8P
                 13579-33-4P
                               13579-34-5P 13579-35-6P 13579-36-7P
     13579-38-9P 13579-39-0P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (preparation of)
=> d his
     (FILE 'HOME' ENTERED AT 17:01:43 ON 09 SEP 2008)
     FILE 'REGISTRY' ENTERED AT 17:01:55 ON 09 SEP 2008
          4064 S C11H13NO2/MF
L2
              5 S L1 AND ACRYLAMIDE
L3
              0 S HYDROXYBENZYLACRYLAMIDE
             26 S HYDROXYBENZYL AND ACRYLAMIDE
L4
L5
             24 S L4 NOT CHLORO
             15 S L5 NOT TERT
L6
L7
             0 S 13560-55-9/CRN
    FILE 'CAPLUS' ENTERED AT 17:04:50 ON 09 SEP 2008
1.8
            13 S L6
L9
              4 S L8 AND PHOTO?
    FILE 'REGISTRY' ENTERED AT 17:05:50 ON 09 SEP 2008
L10
             1 S 13560-56-0
              1 S 23281-77-8
L11
L12
              1 S
                  849686-90-4
L13
             1 S 104835-82-7
L14
            16 S 104835-82-7/CRN
L15
             0 S 849686-90-4/CRN
L16
              2 S 23281-77-8/CRN
    FILE 'CAPLUS' ENTERED AT 17:09:35 ON 09 SEP 2008
L17
            16 S L10 OR L11 OR L12 OR L13 OR L14 OR L16
T.18
             14 S L17 NOT L9
    FILE 'REGISTRY' ENTERED AT 17:11:07 ON 09 SEP 2008
L19
          4952 S C12H15NO2/MF
L20
              5 S L19 AND ACRYLAMIDE
              2 S 13579-23-2 OR 14800-18-1
1.21
             16 S 13579-23-2/CRN OR 14800-18-1/CRN
    FILE 'CAPLUS' ENTERED AT 17:13:10 ON 09 SEP 2008
L23
             34 S L21 OR L22
L24
             26 S L23 NOT L9 NOT L22
L25
             0 S L24 AND PHOTO?
L26
              0 S L24 AND NEGATIV?
L27
              9 S L24 AND POLYMERIZ?
     FILE 'REGISTRY' ENTERED AT 17:14:45 ON 09 SEP 2008
L28
          5280 S C13H17NO2/MF
```

3 S L28 AND ACRYLAMIDE

L29

L30 1 S 13579-40-3 L31 1 S 13579-40-3/CRN

FILE 'CAPLUS' ENTERED AT 17:15:54 ON 09 SEP 2008 L32 2 S L30 OR L31

=> file rea

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